Editoral

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AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

JANUARY 1962

Choosing Silage Corn

More milk in the corn— less milk in the pail!

By JIM EAKIN*

SEVERAL years ago a county agent and I were visiting one of our farmer friends in northern Pennsylvania. We were there to look over the forage crop program, but during the visit, we looked at two fields of corn silage. They both were growing well — one was a tall, late variety and the other was Penn. 444, an early variety, which should be adapted to that county for corn silage.

The farmer had nothing to say about the shorter, earlier maturing 444, but his eyes lit up when we reached the big, late variety. We mentioned the fact that the late corn probably wouldn't make it before frost. He answered that it would yield more tons per acre than the earlier maturing variety.

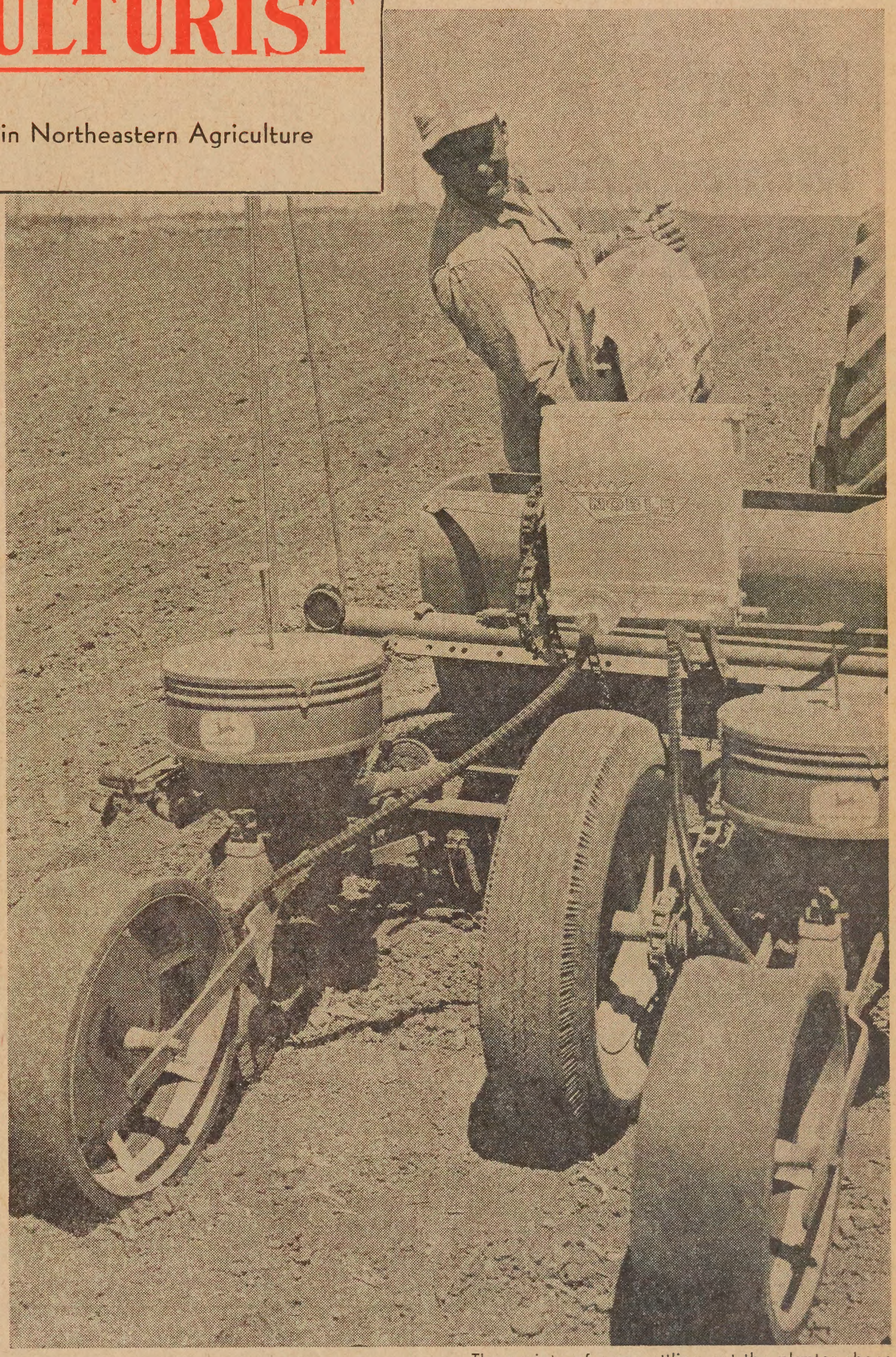
During the following winter I met this gentleman at a community meeting. He volunteered the information that both fields went into the same silo, and he couldn't understand why the earlier variety produced so much more milk. This man was fortunate, in that he had the opportunity to check on the milk producing performance of immature vs. mature corn for silage.

Here is where most of the trouble starts. In short season areas most all the corn goes into the silo and relatively little of it is husked. This does not allow the average farmer to observe the tremendous difference between the early and late maturing hybrids for corn silage.

Any hybrid, early or late, will make silage, but not any hybrid can be used as husking corn. This seemingly allows the short season farm to "get away" with late maturing hybrids for silage. In reality, late maturing corn varieties grown for silage in short season areas produce a large plant with no or immature ears. This adds up to one thing — lots of water and fiber but relatively low total digestible nutrients (TDN).

The table (page 14) illustrates what happened to Penn. 507, a medium maturing hybrid grown in central Pennsylvania. Observe what happened to the yield, dry matter, fiber and TDN with advancing maturity. Dry matter times three (3) approximately equals green weight.

(Continued on Page 14)



The variety of corn rattling out the planter shoes this spring will have a lot to do with the quality of silage rattling up the blower pipes next fall.

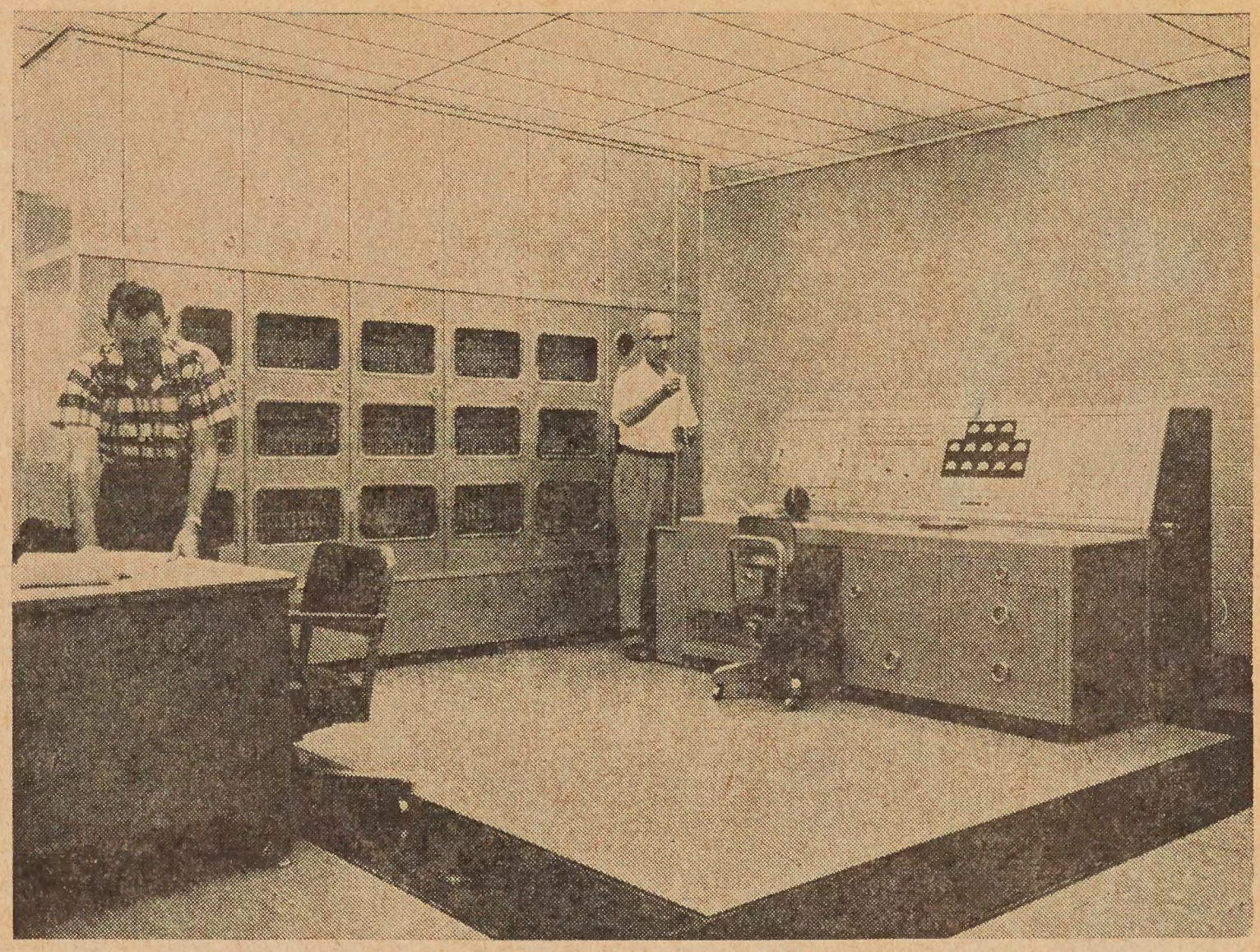
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Here's a "brain" that doesn't get tired like our human ones do. It's joining the ranks of other farm machines in the move to mechanization.

Farm Management Machine



Some farmers are using electronic computers for record keeping.

MOST EVERYONE will agree that having figures available to measure the pulse of a farm business is a good thing. The rub is that there is a heap of pencil pushing and mental gymnastics involved in recording and calculating such figures. But a regional group of agricultural economists, called the Northeast Farm Management Extension Committee, have worked out a system they believe will not only provide better records for farmers, but also do it with greater accuracy and less drudgery.

Actually, Michigan State University and several other public and private agencies have been processing farm records with electronic machines for several years. In the Northeast, the ball began rolling in Maine where farmers wanted a system that would provide them with the financial information needed for income tax reporting, making employee social security deposits, and for business analysis calculations. With these needs in mind, agricultural business specialist Lewis Clark teamed up with Leroy Brown, acting poultry marketing specialist for the Maine Extension Service, and initiated a new "Mail-In-Farm Record" system in the fall of 1960.

Several Problems

Several problems were involved; a major one was to make a single system which would satisfy the different needs that farmers have for financial records. For example, most northeastern farmers use the cash method of filing income tax reports. With the cash method, only those operating receipts and expenses which are actually paid during the tax year are reported. For business analysis calculations, though, all income and expense items, regardless of whether actually paid or received during the tax year, are considered.

Another concern was that the system had to have the capacity to handle any enterprise or combination of enterprises. It also needed to be adapted to handle credit accounts both receivable and payable. Perhaps most important, it had to be uncomplicated; the first step in that direction was to prepare a **single** basic data form which could be used to record any conceivable farm business finance transaction.

The electronic machines used to process these farm records receive their signals from code numbers which represent certain items. One feature of this system which differs from other record keeping methods is that the farmer uses a numerical code to identify the various receipt and expense items. For example, **milk wholesale** carries the Item Code 120 while **hatching eggs** are tagged with Code 111. **Grain for dairy cattle** is Code number 700.

In a conventional account book the classification of items is limited to the number of columns in the book. The electronic method has the advantage in that the number of account classifications is practically unlimited.

Step By Step

The sequence of events is as follows: The farmer makes an entry for each financial transaction on the basic data sheets as the transactions occur. He describes "what" and "who," inserts the proper volume and dollar amount, and assigns a code number which identifies the item for processing. When he makes entries on the data sheet he records **all** types of entries on the same form.

These data sheets are then mailed weekly to the College of Agriculture where they are checked to make sure that the items and code descriptions agree. The data sheets are then forwarded to a commercial operator of one of those "electronic brains." After the end of each month, the processor completes the card punching for the month and prepares a report for the farmer.

A special feature of the system is the running statement of credit account balances. If a farmer enters his outstanding balance, both payables and receivables, at the beginning of the year, then he can receive a complete statement of his credit account balances each month. Needless to say, this is of value both to the farmer and his lender.

Another feature of this system is that it provides for keeping a separate account of farm family living expenses. Although this section was designed to meet the needs of Farmers Home Administration borrowers who are required to keep household accounts, a large proportion of non-FHA cooperators are keeping home accounts in the electronic accounting system.

Although the system is designed to meet the accounting needs of all sizes and types of farms, it is especially adapted to meet the needs of larger and more complex farm businesses. In all cases, it should be remembered that an electronic machine provides answers only as good as the information it receives. The farmer and his wife are the only persons who can supply this basic information. There still has to be **some** pencil pushing!

Regional Interest

From the outset, other northeastern states have been interested; both New Hampshire and Vermont enrolled small numbers of cooperators in the original Maine project. The system went into operation on a pilot basis on January 1, 1961. Approximately 90 records were processed in that calendar year for poultry, orchard, dairy, potato and vegetable farms.

The twelve northeastern states from West Virginia northward have been kept informed of all developments of the Maine system through the activities of the Northeast Farm Management Extension Committee. Activities of the committee are financed by the nonprofit "Farm Foundation," 600 South Michigan Avenue, Chicago 5, Illinois.

It is up to each state and its Extension staff to decide whether or not it will participate. All New England states, New York and Delaware have indicated that they expect some degree of farmer participation beginning January 1, 1962. Cayuga County, New York, is pioneering in the Empire State in connection with the project. Assistant county agricultural agent George Monroe reports that about 15 farm families will initially be involved.

Records will be processed by the Ayrshire Breeders' Association, Brandon, Vermont, and participating farmers will pay for their monthly reports based on a fee schedule tied to different sizes of business and enterprises. A fifty cow dairyman, for example, will pay $45 annually and a poultryman with 10,000 layers will pay $55.

Advocates of the setup believe that the value for tax management alone will offset the cost of the system for most farmers. For example, at the end of November the farmer will know what his receipts and expenses have been, thus placing him in a position to make tax management decisions before the end of his tax year.

(Continued on Opposite Page)

INCLUDED IN THE MONTHLY ELECTRONIC REPORT

1. **A listing of all receipts and expenses (monthly and cumulative).**
2. **A listing of quantities bought and sold (monthly and cumulative).**
3. **Feed costs separated for different types of livestock.**
4. **A separate listing of wages paid each worker.**
5. **A separate social security account which shows at a glance when a deposit should be made.**
6. **A section on open accounts which shows amounts charged, amounts paid, and balance due.**
7. **A section on home accounts for those who wish to keep them.**

SOME TIPS On Better Sparkin'

AS TEMPERATURES plunge downward, engine starting requirements rise—due to a thickening of the various lubricating oils and greases used. Keep in mind too that the colder the weather, the less efficient a battery becomes. At zero degrees, for example, the battery is only about 60 percent as efficient as it is during normal summer months.

Here's a list of tips sent out recently by the Champion Spark Plug Company that will keep the battery strong and "sparking":

1 Transmission — Before pushing the starter button, release manual shift transmissions by depressing the clutch pedal; place automatic transmissions in "neutral."

2 Electrical Accessories — Shut off lights and other electrical accessories before attempting to start the engine. This will assure maximum voltage available for both the starter motor and the ignition system.

3 Choking — Always close the choke before starting the engine. And, incidentally, if you have a truck or car equipped with an automatic choke, be sure to set it in the "on" position by depressing the accelerator before starting.

4 Pumping the accelerator — An additional one or two pumps on the accelerator pedal will dump raw gasoline into the intake manifold and help get enough vaporized fuel into the cylinders during very cold weather.

5 Throttle Setting — When the starter is energized, the throttle should be about half way down to get enough air rushing through the manifold to pick up the fuel and carry it into the cylinders.

6 Starter Motor — Energize the starter for relatively short periods. Avoid grinding away or you may overheat the starter motor and cause excessive drain on the battery.

7 Engine Shut-Off—Before shutting a warm engine off, place transmission in "neutral" and run engine at fast idle. As soon as switch is turned off, depress accelerator to "flood" the engine. This will insure a supply of gasoline in the cylinders for the next start.

FARM MANAGEMENT MACHINE

(Continued from Opposite Page)

During 1961, much has been learned about how to make this system work and how to make it simple. If you're interested, check with your county agricultural agent about details.

Here's a new "farm machine" that can help farmers in that increasingly important job of management. As with any machine, it will be improved as time goes by so it will do more of what its users want. And, by the way, whether electronic or not—it's time right now to resolve to keep and **use** more adequate farm records.



All the Livelong Day

HENRY SUBURBAN reaches out at 7 o'clock of a wintry morning to turn off the alarm clock (price: $5; tax, 50c). He pushes down the electric blanket (price: $28; tax, 84c), climbs sleepily out of bed. He walks across the bedroom floor of his house (price: $12,000; annual property tax, $209) and switches on the electricity, lighting a bulb (price: 33c; tax, 2c).

To music from a bedroom radio (price: $30; tax, $1.80), Henry shaves with his electric razor. As a radio newscaster reports that Henry's state is preparing to increase income taxes and impose a general sales tax on everything anyone buys, Henry slaps a handful of bay rum (price: $1.30; tax, 13c) across his jowls.

He dresses quickly, hurriedly fastening cuff links (price: $5; tax, 50c) and tie clasp (price: $3; tax, 30c), puts on his Swiss wrist watch (price: $60; tax, $6), and rushes down stairs. Tucked under one arm is a leather briefcase (price: $25; tax, $2.50) which carries papers from his real estate office, including one deed (property valued at $3,000; stamp tax, $3.30).

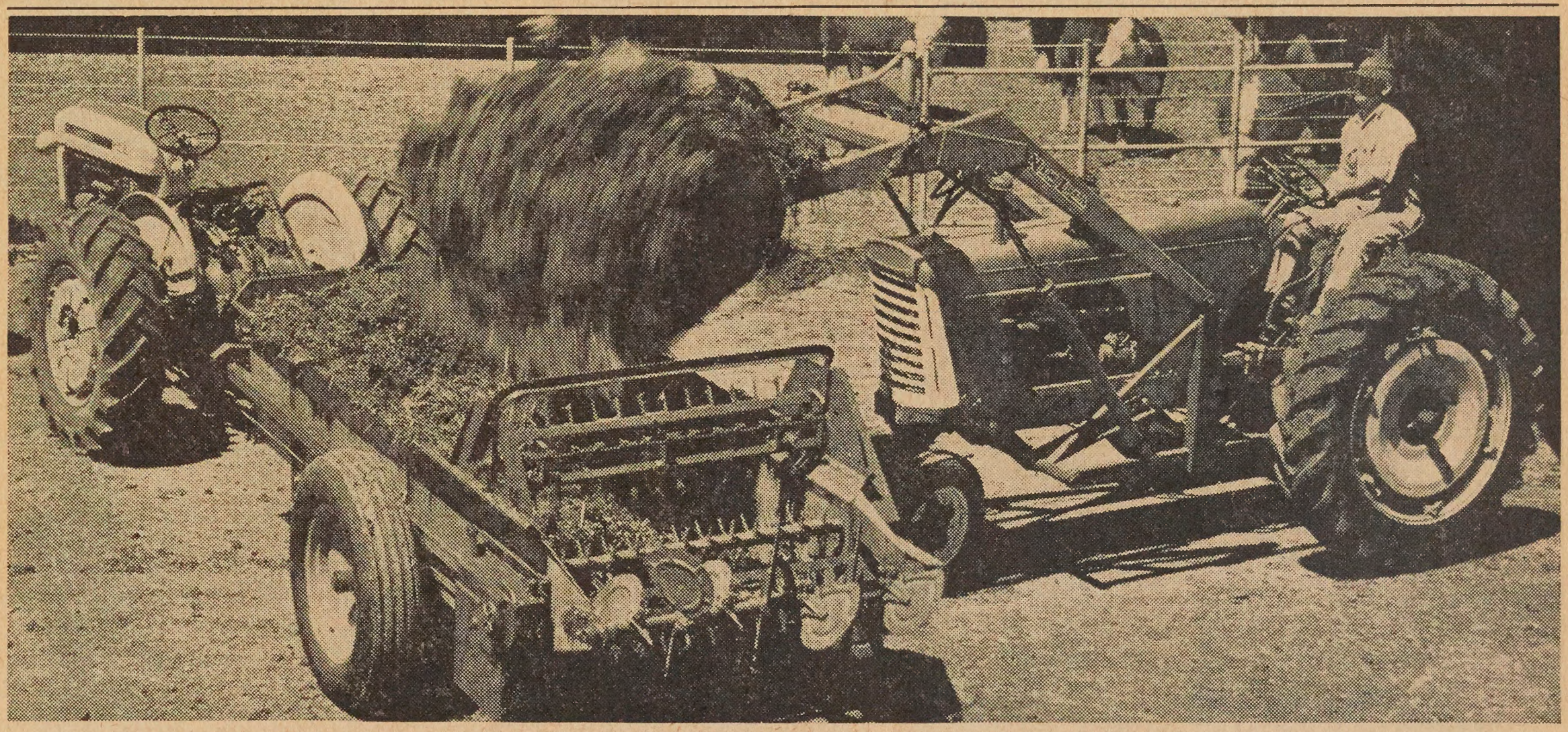
In the kitchen he's just in time to snatch two slices of bread (at least 151 hidden taxes) from the electric toaster (price: $16; tax, 48c), lift his coffee from the gas stove (price: $190; tax, $5.70), and grab a glass of fruit juice from the refrigerator (price: $300; tax, $9).

A glance out of the window shows it's begun to snow, so he calls to his wife (marriage license: $2) to telephone (monthly telephone bill: $12; tax, $1.20) for a taxi. Too many other people want taxis on a snowy morning, so Henry gets out his own car (price: $2,500; total taxes $518) and drives (operator's license: $3) to the railroad station.

Henry relaxes at the station with a cigarette (price per pack: 13c; tax, 15c), lit by a match, (tax: 2c per 1,000). Aboard the train, he settles down to a hand of bridge with three cronies, using of course, a deck of cards (price: 40c; tax, 13c).

In the city on his way to the office, Henry stops to buy a roll of camera film (price: 40c; tax, 2c) that he promised his son (registration of birth: $1), and the lipstick (price: $1; tax, 10c) he promised his wife.

Arriving eventually at the office, Henry sighs (no tax) and settles to a day's work (annual income: $7,500; Federal and state income tax, $986). If he works hard for the rest of his life, he will be able to provide the government with a handsome slice of inheritance tax. And if he dies in a state that is fiscally tolerant, he can take comfort in the thought that his casket—provided it costs less than $100—will be exempt from any sales tax.



"Fill my big spreader in ***three passes?*** *Why sure!"*

IT'S DONE EVERY DAY WITH NEW IDEA'S NO. 503 HEAVY DUTY LOADER AND THE 68" GENERAL-PURPOSE BUCKET!

Designing a big enough bucket was only a part of the job. The real secret in *3-trip loading of a big spreader* is in the brawny frame that hefts such a load. NEW IDEA's 503 Heavy Duty Loader strong-arms 2,700 pounds to full height, and it's heavy-girded to withstand vertical and side thrust shock loads. This makes a 68" bucket practical. High carbon steel cutting edge, series of wear strips, and optional stub tines, make this an excellent combination of loader and bucket for cleaning paved feed lots and loading areas.

If you have a tricycle or wide adjustable front axle tractor, take a big bite out of your work load. See your NEW IDEA dealer soon. You'll like the design of *all* NEW IDEA loaders. Their extra strong frame and low, compact silhouette mean easy handling, better visibility and safety. And you can quickly mount or remove them by yourself. Want more information first? Just send the coupon.

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Editorials

By Gordon Conklin

CHANGES IN LINE-UP

BEGINNING with this issue, there have been some changes in the American Agriculturist editorial team. Augusta Chapman continues her fine work as home editor. Hugh Cosline, after many years of yeoman service as associate editor and editor, moves to the position of contributing editor. Isa Liddell is now editorial assistant, and yours truly has moved to the editor's desk.

The American Agriculturist has always been a team affair and this will not change. Its basic objectives will also remain unaltered —to promote a better living and a better life among its readers. If you have any suggestions, we'll welcome them.

A BOUQUET

RECENTLY it was my privilege to attend a meeting of the New York State Conference Board of Farm Organizations. As you may know, it is made up of representatives from nine Empire State organizations—Dairymen's League, Farm Bureau, Flower Growers, Grange, Grange League Federation, Home Bureau, Horticulture Society, Poultry Council, and Vegetable Growers Association. Its purpose is to serve as a policy-coordinating group, acting only with the consent of all its constituent organizations.

It prepares unanimously approved legislative recommendations for presentation to the Governor and state legislators, but has no lobbying function whatsoever; any legislative pressure depends upon member organizations individually.

Under the able chairmanship of Leland Smith, who is also the chairman of the New York State Grange Executive Committee, the group discussed a wide range of resolutions drafted by each organization. The tone of the entire meeting was constructive; various viewpoints were expressed frankly but without rancor. The members of the participating organizations can be justly proud of their representatives and the work they accomplished.

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I CANNOT EXPLAIN

I CANNOT fully explain the reason why I move into the New Year with hope instead of the despair that might be expected from the state of our world.

Perhaps it is the remembered fragrance of an April dawn, as new life stirs in the basswood buds and the breeze becomes alive with the smell of Spring.

Perhaps it is the moving experience of sharing the hopes and fears of my neighbors on a Sunday morning in prayer to our God.

Perhaps it is the pages of history that stir the imagination with the warmth and humanity of generations past.

Perhaps it is the pride which shines in a father's eyes as he watches his son sitting at the kitchen table struggling with arithmetic.

Perhaps it is the expression on the face of a little girl when she is enfolded in the haven of her mother's arms.

Perhaps it is the years of watching a mysterious force bring fruitful growth from seemingly lifeless kernels of wheat and corn, from the withered husks of bulbs.

Come what may, these things point ever onward along the path of the adventure of life.

FOOD FOR PEACEFUL COWS

THE slogan "Food For Peace" is one of those semi-sacred things almost on a par with motherhood. But there is something about it that bothers me and I'd like to hear some comments from readers.

India is one of the recipients of large quantities of food from the United States. A strong emotional case in support of feeding starving people, of which India has plenty, can be made.

But India has a population of 202 million cows, in addition to 400 million people. Since devout Hindus refuse to kill cows, thousands of aging animals are turned loose to wander through villages and towns, exercising their uncontested right to forage in any garden. One Indian official estimates that 10% of India's cows are old and economically useless, but that this 10% devour the agricultural output from 40 million acres.

Hindu businessmen support old cows' homes more readily than old peoples' homes. A big chunk of the public budget is allocated to maintain rest homes for old cows. The Hindu religion includes belief in reincarnation, the "coming back" of the human spirit in animal form—therefore the refusal to kill, much less eat, these four-footed animals seen everywhere in the country.

Not only do the cows eat up vast quantities of food, but they also represent a potential of somewhere around 100 million tons of high protein food on the hoof. Another sidelight to this question of food is the fact that monkeys also gobble up great quantities that humans could otherwise eat — also without any interference by devout Hindus.

Now, I'd be the last to propose that we try to make anyone change his religious beliefs under duress. But my question is—how far should we go in perpetuating this system?

FARM THE GOOD LAND

FARMERS in some populous areas of the Northeast are paying land taxes far out of proportion to its ability to show profit.

For example, in New Jersey, 1959 figures started off by showing an average value of farm land as $568 an acre, compared to a national average of $108 per acre. This valuation, of course, is partly responsible for the very high taxes in that State, nearly $10 per acre per year, compared to the national average of about $1.

Farmers feel, justifiably, that as long as land is farmed it should be taxed on its value as a farm. Then, if sold for factory or home sites, a sizable tax could be assessed.

A notable example of what can happen occurs in the Connecticut Valley as the tobacco acreage shrinks. It is extremely difficult to find any agricultural product that can be grown on that land and return a profit. As a result of this, some of the best land in New England is going out of farming.

Certainly we don't at this time need production from all the available land in the country. Nevertheless, it hurts to see top quality land taken out of production. It would seem that some long-range planning could be started whereby poorer land could be used for non-farm purposes.

CAREERS UNLIMITED

AGRICULTURE IS BIG business, even though numbers of farms continues to shrink. There are 15,000 new job openings in this country every year in eight major fields connected with agriculture. Two thousand of those openings are in farming, but 13,000 are in the related fields of business, industry, education, services, conservation, research, and communications.

It has been said that fewer than 15% of farm boys on farms today can expect to own and operate their own farms. Some folks seize on this to justify a "program" or to claim that agriculture is dying.

Far from being a dying industry, agriculture offers opportunities for a wide range of employment. Any college of agriculture can give details.

They Say - - - - -

Profits and progress . . . are inseparable. Profits make jobs and opportunities. That fact was thoroughly understood by one of the greatest labor leaders the world has known, Samuel Gompers. Years ago he said: "The worst crime against working people is the company which fails to operate at a profit."

—Waterville, N. Y. Times.

AA's Farm Dollar Guide

THE NOVEMBER UNIFORM MILK PRICE in the New York-New Jersey market was $4.60. In November, 1960, it was $4.85, and the October, 1961 price was $4.42.

November milk prices in other markets, all corrected to a 3.5% butterfat test, are as follows: BOSTON, 201-210 zone, $4.78; BUFFALO, f.o.b. city, $4.93; CONNECTICUT, $5.84 at city plants for nearby zone farmers; ROCHESTER, f.o.b. city, $5.00.

RECENTLY, PRICES FOR DAIRY COWS in Northern New England averaged $251 per head; were down 5% from year earlier.

DAIRY HEIFERS producing milk are usually growing, and need 1 to 4 pounds of grain per day above requirements for milk production.

LIVESTOCK NUMBERS on January 1 were up slightly from last year. BEEF CATTLE up about 3%; SPRING PIGS up 4%; HENS and PULLETS up 2%; DAIRY COWS steady but production per cow 1½% above '61; SHEEP numbers down 3%.

CONTROL RECOMMENDED BY CORNELL FOR LICE ON DAIRY CATTLE is ½% to 1% rotenone dust at rate of 3 to 4 oz. per cow worked into hair over entire body, OR 1 to 2 lbs. of 5% rotenone powder per 100 gallons of water sprayed at rate of 2 gallons per stanchioned cow.

TURKEY CROP IN '61 WAS 107 MILLION. For good prices, 1962 crop should be around 85 million, nearly 20% less. Growers indicate intention to reduce production only 3%. Being considered is national marketing orders for turkeys and turkey hatching eggs.

WHEAT GROWERS SHOULD DO AT LEAST AS WELL IN '62 if weather is normal. Mandatory 10% acreage reduction will be offset, income-wise, by 21 cents a bushel higher supports, plus diversion payments. Feed grain growers should at least hold 1961 gains in 1962.

SOYBEAN CROP OF 70 MILLION BUSHELS is 25% above '60. Big factor in increase was jumping price supports to $2.30 per bushel. May bring surplus and controls on crop which was not in trouble.

WHILE FEDERAL BUDGET FOR '63 WILL BALANCE ON PAPER, critics say spending is underestimated and receipts overestimated. Probable result, another deficit estimated at $3 billion.

The Song of the Lazy Farmer



MY neighbor's looking sad and glum, he says the world is on the bum, and he has nearly lost all hope that we will ever learn to cope with messy problems like Berlin without a war no one can win. He sits up fretting half the night for fear that we'll get in a fight because the Chinese try to pounce upon some land we can't pronounce. The troubles of the Congolese cause neighbor's ulcers to increase; he hates the sight of Castro's beard and can't eat 'cause he's so a-feared that Khrushchev's next atomic blast may be the whole world's very last.

I know these things are serious and should be of concern to us, but here at home there's problems too, and it's about all I can do to straighten things out locally and leave those foreign problems be. I'm sure the U.N. won't debate the question of our school tax rate, and no stripe-trousered diplomat will fret because my wallet's flat. There's so much in this neighborhood to stew about, I'm sure I could keep busy worrying for years and have no time for world-wide fears; while neighbor's thoughts soar 'cross the sea, I'll handle township woes, by gee.

MORE FROM EVERY ACRE
THROUGH CREATIVE SEED RESEARCH



DuPuits is an early riser

NORTHRUP KING

No, DuPuits isn't the name of our little farm friend here! But, it *is* the name of his dad's beautiful crop ... Northrup King's prolific DuPuits alfalfa.

DuPuits (pronounced "dew-pwee") is known as an early riser because of its happy habit of rapid, early spring growth and unusually fast recovery after cutting. This head-start means DuPuits normally should be cut a week earlier than other varieties, and usually results in an extra cutting each year. It winters well, and is resistant to leaf-spot disease. And, because of its growth characteristics and tolerance to insect damage, DuPuits sends leaf-hoppers packing to easier pickin's.

True, DuPuits makes some demands for its virtues. It asks for fertile soil. It pours its vigor into a comparatively short life (one to three hay years). But, farmers who do right by DuPuits (and thousands do every year) agree that the heavy tonnage of top-quality hay, succulent green-chop, or sweet nutritious silage gives them full measure, and then some, for the little extra cost and care.

This time-conscious alfalfa was the first *privately* developed variety to become successfully established in this country. Last year, well over one-quarter of a million proud acres were added to those under the green and purple banner of DuPuits ... making it the third most widely planted variety.

Other members of the family

Of course, not everyone is ready for NK's aristocratic DuPuits. For them, NK's general purpose 919 Brand may be the answer. It still requires good soil and good treatment, and provides additional winter hardiness.

Or, are you looking for an exceptionally hardy, long-rotation alfalfa? Northrup King's 10-19 Brand will last year after year under heavy grazing and cutting. It is highly resistant to bacterial wilt disease, and yields especially well in combination with forage grasses.

But, getting back to DuPuits. If you've never planted it before, try it next time you put in alfalfa. What a crop that DuPuits is!

Note: These new alfalfas are all NOCULIZED® seed – already inoculated with the *right* nitrogen-fixing bacteria ... ready to plant when you get it.

NORTHRUP KING SEEDS / Minneapolis, Minnesota

A Citizen Takes a Look at the "Status Quo"

By HUGH WILSON



ANYONE reading this should keep two things in mind. First: No one would enjoy a perfect world, because there would be no spicy news, gossip would be a lost art, there would be nothing to complain about, and life would be a bore. Second: This is the best country in the world, and before criticizing it everyone should repeat Stephen Decatur's famous toast, "Our Country! In her intercourse with foreign nations may she always be in the right; but our country, right or wrong!"

In defining the words "status quo" a schoolboy said, " 'Status quo' is the mess we are in." The world is in a mess, and at times it seems our skirts are not as clean as we might wish. Such being the case it may be worthwhile to take a glance at a few things going on.

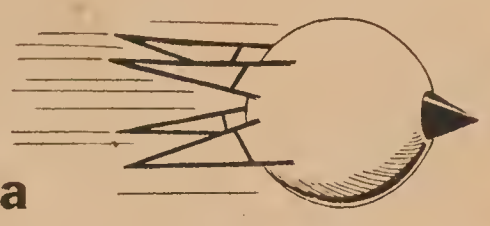


bumbling statesmen

Beginning with Korea, this country has been placed in one bad position after another. Berlin and Laos are examples of situations that experts say cannot be defended. The boundaries of some newly-created countries are economic nightmares and our globe-trotting statesmen are urging creation of more new countries whose people fit Kipling's description "half devil and half child."

Everyone tries to counter Iron Curtain country moves, and no one seems capable of planning a program that will allow us to take the offensive.

space race hysteria



The Russian astronaut's earth-orbiting feat touched off a demand for unlimited spending to enable this country to match the stunt. The hue and cry, probably started by lobbyists, left the impression that U. S. prestige will be damaged beyond repair if we do not follow suit immediately.

But according to supposedly reputable authorities, superior design made it unnecessary for the U. S. to develop the powerful engines that the Russians needed to put up their bulky pay loads. In any event coaches and star athletes know that to win **you play the game** and not your opponent.



hurt feelings

In past years jokes about racial and ethnic groups were accepted as fun and enjoyed by nearly everyone. Now such story-telling is considered bad taste and cause for anguished letters to congressmen. We submit that when anyone is hurt by a harmless anecdote it merely proves he is ashamed of his own ancestry. Did you ever see a frugal Scotsman who did not get a kick out of a yarn about his countrymen's stinginess?



zany newsmen

When Ex-President Ike had his ileitis attack a radio newsman climbed a tree and in sepulchral tones reported on what he could see through the hospital window. For our money that guy was merely a Peeping Tom. When someone threatens to bomb an aeroplane or kidnap the President's daughter newsmen spread the word to every nook and cranny of the country.

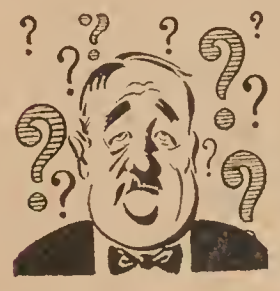
It is common knowledge that such news put ideas in crackpots' heads and guarantees that the incident will be repeated. At press conferences newsmen ask questions that could plunge the country in war if the President answered them. How long can, or should, we have freedom of the press when so many of its representatives act like feather-brained show-offs?

literary sewage



Sure we know little boys have always loved little girls—so why not talk about it? Life does have a seamy side and we need to realize it. Off-color stories are funny if told at the right time and place. But do we need to wallow in filth whenever we read fiction or go to a movie? Does every script writer have to build a plot around a harlot, pervert, or similar scum?

The most charitable comment about these writers is that they are seeking realism and have a warped view on life. A complete description would put us in their class. If public sentiment ever demands the extermination of these vermin we think louse powder will be cheaper and more effective than gunpowder.



diplomatic double talk

Long ago when we were kids at home, name calling was forbidden and drastic punishment awaited the culprit who called his brother or sister a liar. Since kids can't be polite, a secret conclave was held to see how we could get around this decrée. To avoid grief and still put the idea across, it was decided that when questioning another's veracity we would say, "You are a diplomat." This childish game was recalled when the U-2 flight and the Cuban invasion were prominently in the news.

According to reports, State Department officials at first denied that the U. S. had anything to do with the U-2 flight, and our top hat U. N. representative righteously proclaimed that we knew nothing about the Cuban fiasco. Later it came out we had plenty to do with both. It seems right and proper for a nation to defend itself, and Marquis of Queensbury rules are not followed when fighting snakes. But U. S. prestige suffered when its highest representatives were caught telling falsehoods.



idealistic liberalism

In the early 1930's a so-called "Brain Trust" of presidential advisors was appointed. While some worthwhile things were done, these gentlemen, who were more theoretical than practical, made some bad mistakes. Nevertheless, this experiment set the stage for a clique of so-called liberals intent on saving the country even though they destroy it in the process.

In both parties there is a trend toward more give-away programs and no interest in balancing the budget. College government departments are apparently teaching students that more and bigger government is needed. Recently the head of one such department emitted a peevish wail at some common sense remarks made by Barry Goldwater. To the Herr Professor we would like to repeat Julius Caesar's observation that "When he wanted to punish a province he sent a philosopher to govern it."

irresponsibility



Labor unions that cause slow-downs in the space program and call strikes that upset millions of people are guilty of irresponsibility. When first we saw our Secretary of Labor's arm-pumping style of oratory we were reminded of a man milking a cow. The idea may be appropriate because he seems to be trying to milk the entire country.

When the President suggested that obsolete defense items be reduced there were howls of protest from the affected communities. Congress, who listens to the voice of the voters, will probably put these unnecessary items back in the budget. Democracy dies when special interests take the place of the public good.

Are we discouraged with today's world? Not at all. However, history shows that nations collapse from internal dry rot when their citizens become selfish and soft. Since there is reason to believe history can repeat, it will pay to take a critical look at ourselves.

If we do we may find that the situation is the same as it was nearly two hundred years ago when a witty Frenchman said: "The American people are like a barrel of their own beer, froth at the top, dregs at the bottom, but clear and sound in the middle".

If the sound and clear faction will but make itself felt and elect the right kind of leadership, all will be well.



Art and Gladys and the younger generation Bobby, 12, and Linda, 14. In putting on a big barbecue, the entire family works including Art's mother and dad.

"Come and Get 'em"

By HUGH COSLINE

ART CLEMONS of Holland Patent, N. Y., has an interesting combination of 9,000 layers and a growing business in putting on chicken and beef barbecues.

"The barbecue business started gradually," said Art. "About six years ago we put on a few for local organizations. Three years ago we had 30, in 1960 we nearly doubled this, and in 1961 we topped 1960's number, with larger attendances all the time. Along the last of August we put on 14 in 11 days."

Getting back to egg production, Art hatched baby chicks up till about four years ago. Now he buys around 6,000 replacements a year, splitting them up into three batches, some being baby chicks and some seven-week-old pullets.

"I practice some control feeding," said Art, "figuring on bringing pullets into production at about 5½ months of age instead of 4½ months, with the idea that eggs are larger. We always have trouble disposing of small eggs.

"We have a semi-retail business and we put a lot of stress on quality. For one thing, we put the eggs in the cooler overnight before we pack them. I deliver twice a week, which takes about four hours per trip. Eggs go to dairies, stores, and during the summer we have one man who buys 25-30 crates a week and peddles them.

"We have mechanized as much as we can with the present buildings," said Art. "First we installed bulk bins and automatic feeding. As you can see, one building is a remodeled dairy barn, another was originally put up for broilers but is now used for growing replacements, and then we have still another building that holds layers. Some of the pens have pits in the middle, and in these we have about one bird per 1¾ to 2 square feet."

Art says that he got started in the poultry business when he won 25 chicks in an egg judging contest when he was 12 years old. Incidentally, in 1940 he was one of our **American Agriculturist** 4-H winners as a vo-ag student.

I asked about rate of growth. In '51 the poultry consisted of about 1,500 layers. That was the year they got out of the dairy business and remodeled the barn for poultry. From that time on the growth was gradual up to the present 9,000.

In the early days the price for broilers permitted a profit, but about four years ago Art had 10,000 broilers when, he said, "You could scarcely give them away!" That persuaded him to get out of the broiler business. He dressed and froze a large part of the 10,000 and was able to market them gradually.

At the present time Art doesn't raise the broilers to supply his barbecue business; he finds that it is more profitable to buy them. He usually has from 1,000 to 1,500 frozen to take care of extra demand, and in the summertime buys around 1,500 broilers a week.

"We operate within a radius of about 75 miles. We have gathered quite a bunch of equipment including three tents, a public address system, two refrigerated drink dispensers, coffee urns, a portable refrigerator, freezer, serving equipment, and a truck and trailer. We have fed some large groups. For example, in June there was a firemen's convention at Richfield Springs where they said there were 10,000 people in attendance. We put up tents and had 18 people waiting on customers.

"We are fortunate as to help. My wife Gladys, along with Linda, Bobby, Mother and Dad help on the larger complete Dinner Bar-Be-Cues, and my brother Frank, who has a nearby dairy farm, works with me frequently.

"As you can see, this has grown into a family operation, and we really enjoy putting on these public outings.

"Without a semi-retail market it would be difficult, at certain months of the year, to show a reasonable return from egg production. But with our combination of eggs and barbecues, we expect to stay in the poultry business."



This happens to be beef. Looks mighty good! The organization hiring Art's barbecue services can choose beef or broilers.



This remodeled dairy barn is one of three main poultry houses with a combined capacity of 9,000 layers.



Layers on slats over a pit. To even out egg production, three batches of pullets are started each year.

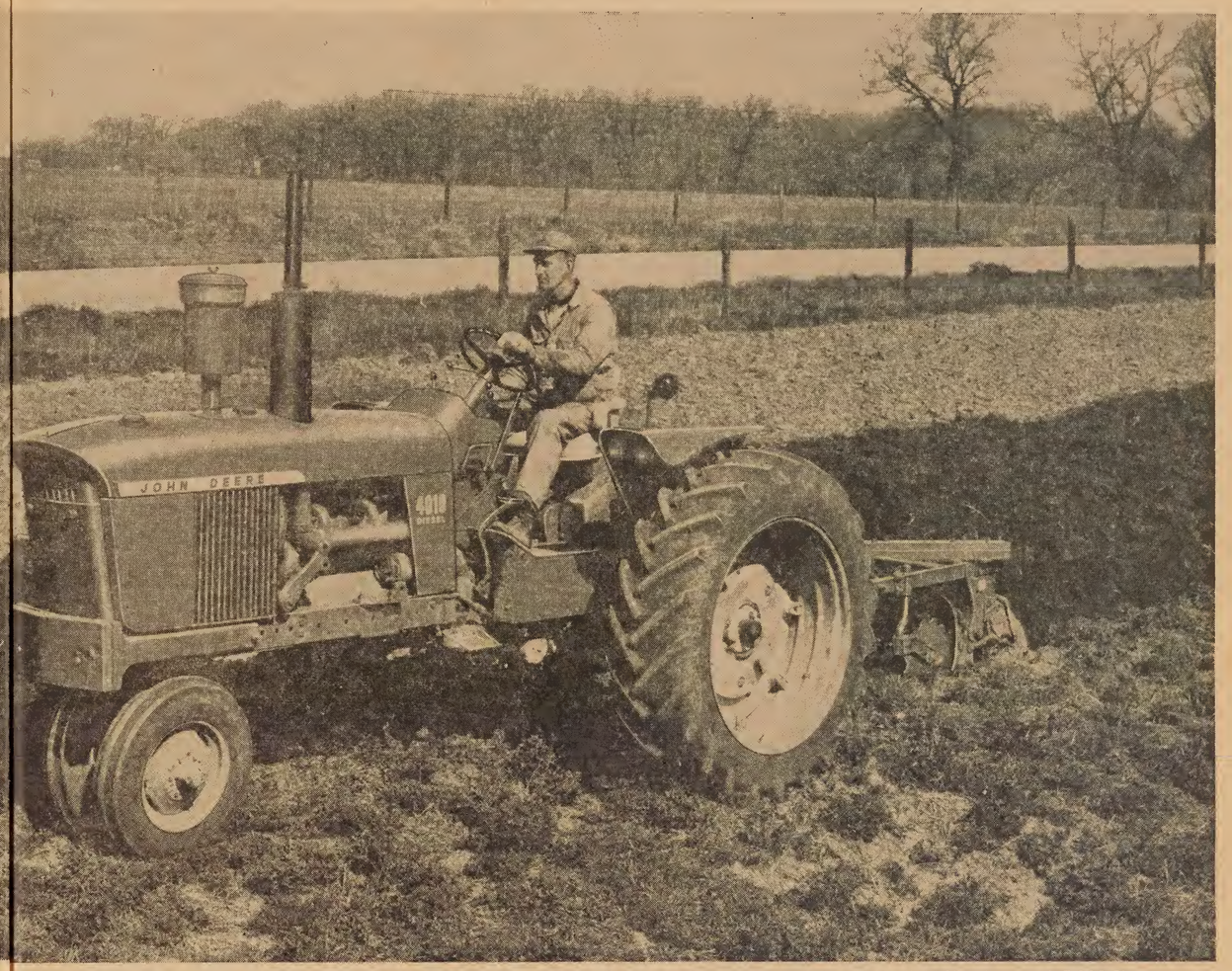
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Helped Beat Wet Spring

"This "2010" Row-Crop Utility sure isn't lacking in power and speed. It helped get our crops in when we didn't have much working time between rains. We plow in 4th gear with three 14-inch bottoms, 8 to 10 inches deep. The seat is nice." *—Clara Eastman, Woodville, N. Y.*

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"Any custom operator who appreciates fast performance would be proud to own a "3010." I've filled 32 silos with it this fall . . . picked 560 acres of corn last year . . . one day sprayed 100 acres in several locations. I average 20 mph going from job to job . . . 3-1/2 hours and 11 gallons of fuel per silo (10x40 ft.). I come home from a full day with spring in my step." *—Herbert Gehr, Stevens, Pa.*

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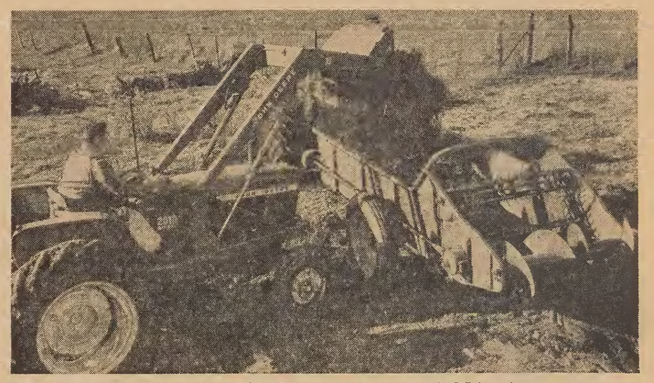
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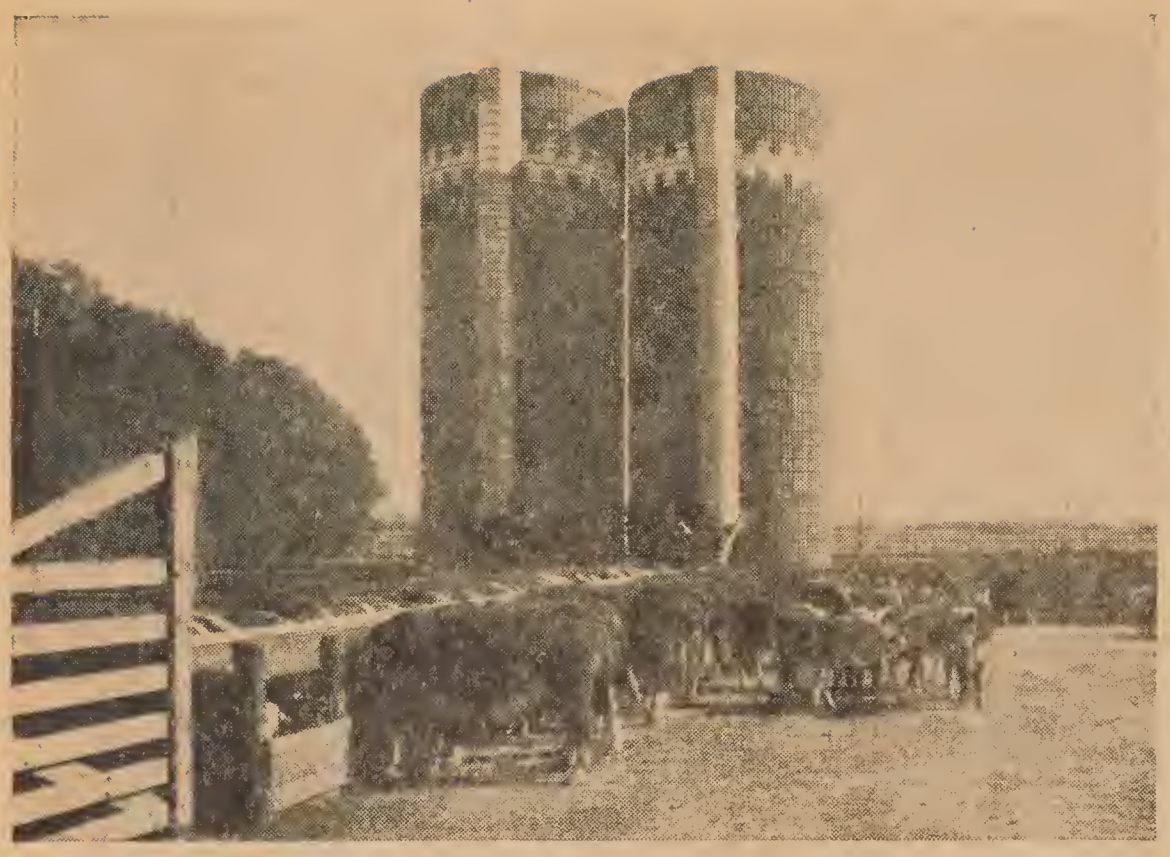
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In fact, a concrete silo is your best all-around buy. Initial cost is low and concrete will give a lifetime of service with minimum upkeep.

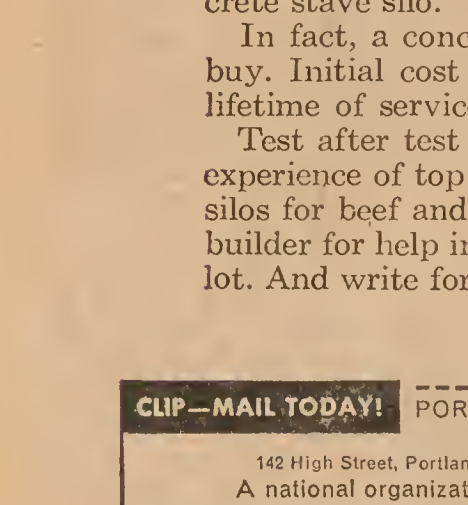
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Dr. Naylor's BLU-KOTE



Here's how to keep a good hired man

By GEORGE L. CASLER*

Incentive Payment Plans

DO YOU have trouble keeping a good hired man? If you do, possibly you should try using an incentive payment to increase his interest and income. If properly used, an incentive plan will also improve or at least maintain your own income.

Incentive plans are not a cure-all for farm labor problems. In fact, such a plan should not be used at all until other requirements have been fulfilled. The hired man should be provided with a decent house to live in. Working conditions, including employer-employee relationships must be satisfactory. The hired man should be paid reasonable wages and some provision should be made for vacation or at least some time off. A hired man can have these things if he takes a job in town and can be expected to want them if he works on a farm.

A longer day must be worked on farms than on most jobs in town. Also, on most farms, some work must be done every day in the week. An incentive plan may be just what you need to balance these longer hours with additional income for your hired man.

Several types of incentive plans have been used by farmers. Piecework is one type of incentive plan but this is more suitable for seasonal or harvest labor than for full-time men.

* Dept. of Agr. Economics, Cornell University.

Based on Production

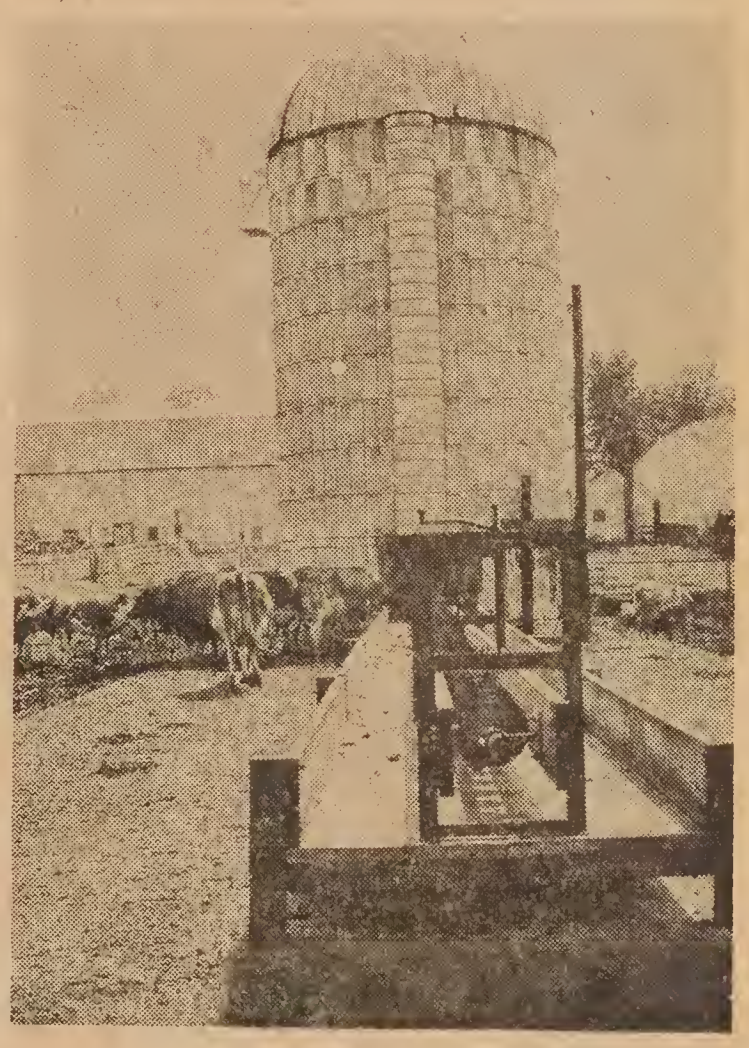
The simplest type of plan is payment based only on production. This is likely to be the best type of plan for a farmer and hired man who have had no previous experience with incentive payments. This kind of payment can be very easy to compute and easy for the hired man to understand. It has the advantage of allowing payment soon after the farmer receives income from his farm products. These regular payments are important if the hired man is to see the value of the incentive plan.

There are many possible variations of this basic plan. Crop farmers can pay a certain amount per bushel or per ton of product sold. Several dairy farmers have paid their hired man 10-15 cents per hundredweight on all milk sold. A percentage of the milk check can be used, but this makes the hired man's payment subject to changes in the price of milk. A good plan for poultry farmers is to pay the hired man 25-50 cents on each case of eggs sold and then another payment at the end of each cycle of hens.

(Continued on Opposite Page)

Upright Pasture

GEORGE and John Humphreys operate a 500 acre dairy and cash crop farm near New Hartford. Oneida County, New York Their Guernsey milkers were on pasture in 1961, but they weren't very much interested in rustling up their own grub The reason appears in the picture (right) — a 16'x30' silo filled in the fall of 1960 with corn silage. Twice each day — right after milking—the silo unloader delivered another square meal to the 60 foot auger-equipped feed bunk. Sixty-five hungry mouths took over the materials handling job from that point.



The Humphreys believe this system is a definite improvement over their previous barn feeding of silage. The cows seem to eat more, and flies aren't as troublesome in the barn as when silage was fed there. Only disadvantage has been that Bossie just hasn't been interested in coming in the barn to be milked.

Looking ahead, George and John plan to cut pasture acreage and depend even more on summer feeding from the silo. Seems that fewer and fewer cows in the Northeast will be roaming the greensward in search of a sprig of grass.—*G.L.C.*

Incentive Payment Plans

(Continued from Opposite Page)

One problem that can arise in using a payment based on physical production is that it may encourage the hired man to use practices that are uneconomical for the employer. An example of this would be overfeeding grain to dairy cows to provide extra income to the hired man. To him, every extra hundred pounds of milk might be worth 15 cents but the grain would be "free". The best answer to this is to become well acquainted with your hired man and not offer the plan to someone who would be likely to use such practices.

Based on Ownership

A plan that might appeal to some farmers is helping the hired man acquire ownership of some cattle. This plan may be especially applicable to a man who plans to farm on his own in the future and would like to start building a herd of cattle. It might also work well with an older hired man who does not plan to farm but has a "desire for ownership" of a few cattle.

These plans usually start with the farmer giving the hired man one or more calves and allowing him to raise them on the farm. The farmer provides the roughage and usually the grain. Over a period of several years the hired man can build up a small herd. It may help keep the hired man on the farm longer, but in the end, of course, he farms on his own.

This type of plan does have some advantages. The cash cost to the farmer is usually small, but the true cost sometimes is quite large. The hired man may not see the true value of the plan because it does not provide him with any immediate cash. If the hired man stays long enough so that some of the animals start producing milk, the question usually arises as to who gets the milk income. Usually the farmer does, but arrangements could be made to split it with the hired man.

A Share of the Profit

Theoretically, a plan to share the profit would be the ideal incentive plan. In reality, actual profit is difficult to compute and hard for the hired man to understand. Usually, this plan should be reserved for the kind of a man a farmer would be likely to take into partnership.

If this type of plan is to be used, it seems necessary to keep the calculation as simple as possible and at the same time include all the major receipts and expenses. Some farmers have paid a percentage of the difference between the milk check and the feed bill. This is certainly simple to compute but leaves out many of the expenses. Probably a better system is to set up at the beginning of the year the items that are to be considered receipts and expenses and arrange to make a payment to the hired man each month or each time a crop is sold.

An incentive plan usually should not be tried until the hired man has worked for the farmer long enough so they have become well acquainted. It should be kept in mind that some other things are more important in keeping a hired man satisfied than are incentive payments.

To help avoid misunderstandings it is best to make the incentive plan a written agreement. This should include the following points:

The purpose of the agreement.

The responsibilities of the hired man.

The method of calculating and making the payment.

The duration of the agreement.

A method to arbitrate disputes.

An effective incentive plan requires planning. It needs to be thoroughly discussed with the hired man prior to its start.

See Before You Saw!



THERE IS plenty of evidence that many woodland owners are literally "babes in the woods" when it comes to selling timber. Before the chain saws begin tearing the timber, be sure you know what you're selling.

A recent study at the University of Massachusetts shows that, on the average, owners who had some kind of professional advice received a 20 percent higher price for stumpage than those who didn't. Verbal agreements with buyers were the most common, sometimes leading to misunderstanding.

Here are some pointers:

1. Payment should be based on measured or accurately estimated amounts. Know what you sell—the buyer does.
2. Require or use good management — trees properly spaced, have ample seed trees, prevent unnecessary logging damage to young trees.
3. Contact several buyers before any sale; you do this when buying large items.
4. Select and mark the trees you want to sell. If you don't, the buyer will take the best ones.
5. Use a written timber sales agreement.

County agents can help any northeastern woodland owner contact competent foresters who will more than earn their pay with volume estimates and tree selection. Foresters of federal or state agencies will also be of great help in selling timber.



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Personal Farm Experience

Forage Program

WE HAVE 62 head of cattle to feed, including 35 milkers. Our soils are naturally high in lime (pH of 6.5-7) and they grow alfalfa very well. It should be mentioned that excellent management by the former owner, Frank Smith, has played a real part in present good yields.

DuPuits has grown very well, as has Narragansett. However, our experience has been that Vernal has yielded even more than Narragansett.



Kimber Spargo

We began haying the first week in June, starting on the DuPuits. By the way, it is interesting to note that in fields with this variety of alfalfa there seem to be fewer woodchucks than in other fields. The alfalfa grows so thick that even Br'er Ground Hog gets discouraged digging through the roots.

We have two 42" fans for our mow drier and it really saved a lot of hay in 1961. Anyone in our area who didn't have a conditioner and a mow drier during this last hay harvesting season really had a rough time because of the wet weather. We didn't lose a single bale and had our 50 acres of first cutting all finished and in the barn by July 8.

We always seed straight alfalfa at eight pounds per acre, except for DuPuits which has some Lincoln bromegrass added. Next year we plan on seeding 16 acres. We're going to experiment with 6 acres of the new Cayuga alfalfa variety by seeding in the spring (no cover crop), spraying with dinitro to control weeds.

Summer Seeding

Then we'll seed 10 acres about the first week in August. This latter field is sod that is 6 years old; we'll take the first cutting early, put on 200 pounds per acre of ammonium nitrate to stimulate summer pasture, then plow and seed at the time mentioned.

We make a practice of feeding our forage pretty well. During the last 4 years, when growth stopped in the fall we topdressed on meadows with 0-20-20 or 0-15-30 at 300 pounds per acre. We switched to the 0-15-30 in 1960 because of some potash deficiency symptoms on one 16-acre field which had been topdressed with 0-20-20 the year before. We had a big increase in yield, probably due to increased potash.

From our 50 acres of alfalfa hay land, we cut an average of 4 tons per acre in 1961. Soil tests taken periodically have helped a great deal in planning a realistic fertilization program.

Next year, we don't plan on growing any oats because of the experiment in seeding without a nurse crop. We've made oat silage at the "right time" according to the experts, but feel it leaves something to be desired. We liked oat silage, but the cows complained in the milk pail and we don't see any percentage in bucking City Hall.

In 1961, we made hay of our oat crop when it started going down and will feed it out to the young stock. Oats are a problem; if you fertilize them for high grain yield there always seems to be a great struggle to save the grain.

We plan to put up some grass silage next summer in order to get the first cutting started early. However, we feel it is more profitable to keep our equipment inventory low, will have the silos filled on a custom basis.

Speaking of finances, our Farm and Home Management Program figures show that our feed bill in 1960 was only 19.7% of our gross receipts. Fertilizer costs were $12 per acre, higher than average. However, I don't think we've yet reached the point of diminishing returns on fertilization.—*Kimber Spargo, Springfield Center, New York*

Field Seeding Tomatoes

On June 5, 1961, we field-seeded 3½ acres of tomatoes in rows four feet apart. Fertilization per acre included eight tons of manure, plowdown of 600 pounds of 0-15-30, drilling 600 pounds of 8-16-16 just ahead of planting, a sidedressing of 100 pounds of ammonium nitrate per acre right after thinning the plants, and another 100 pounds of ammonium nitrate when plants were in full bloom. Fertilization was the same for both field-seeded and transplanted acreages.

THE STARTLING
FACTS
ON TRACTOR
HORSEPOWER
AND WEIGHT

...and what it means to fuel economy and pulling power

What is usable horsepower? In a word, it's the pulling power you put to work at your tractor's rear wheels . . . the horsepower left after you subtract power losses drained off by friction and *wheel slippage.*

What about weight? When the going is tough—which on most farms is most of the time—you have to have *weight* to put horsepower to work. Without weight your tractor is limited to the easier and lighter jobs. That's why Oliver has designed working weight *into* the new 1800 and 1900 tractors . . . to handle the full range of your heavy-duty farm operations!

What does this mean to fuel economy? Putting more horsepower to work means you get more horsepower per gallon of fuel. As proved in nationally recognized tests, the drawbar pull is 10,619 pounds on the Oliver 1800 gas tractor, 11,040 pounds on the 1800 diesel, and 12,475 pounds on the 1900 diesel. The fuel economy of these high-performance tractors—measured in horsepower hours per gallon—ranged from 20% to 29% higher than the next-best tractor in their class. The 1800 gas tractor operated for nearly $3.00 a day less fuel than the next-best tractor!

Why there's no substitute for Oliver's pure, positive pulling power: Chances are you've seen a demonstration of the 6-plow Oliver 1800 or the mighty 8-plow 1900. You may have heard how the 1800 set fuel economy records by plowing 3.38 acres of heavy black soil in 1 hour for 27¾ cents* an acre. Or how the 1900 diesel plowed 4 acres in 1 hour for 20 cents* an acre.

These tractors can perform like this because they have the most ideal combination possible of engine power, weight distribution, depth control and gear ratios.

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We used two-thirds of a pound of Fireball seed per acre, which I think was plenty. Seeds were covered from one-half to three-quarters of an inch deep; practically every seed grew. Thinning was necessary, ending up with plants six to ten inches apart.

Solan, at the rate of three quarts in 100 gallons of water per acre, was used as a weed killer, applied on a complete coverage basis just before seedlings came through the surface of the ground. Weeds grow faster than tomatoes; without a weed killer like Solan, direct seeding would be impractical.

Harvest on fields where tomato plants were transplanted began on August 28; two pickings gave an average yield of 21 tons per acre. The field-seeded plants, being crowded, seemed to ripen more uniformly —yielding 19 tons per acre from one picking, beginning on September 25.

We didn't see much difference in size between the two methods of planting, but for some reason the field-seeded plants produced smoother tomatoes. As already indicated, the combination of planting methods spread out our harvest season. If and when machine harvesting of tomatoes becomes really important, direct seeding will probably have an even greater advantage. — *Stanley Kast, Albion, N. Y.*

Syrup Season

The 1960 syrup season was our biggest one ever. Sap crowded four percent in sweetness; ours always seems to run high due to trees with large tops that are out in the open

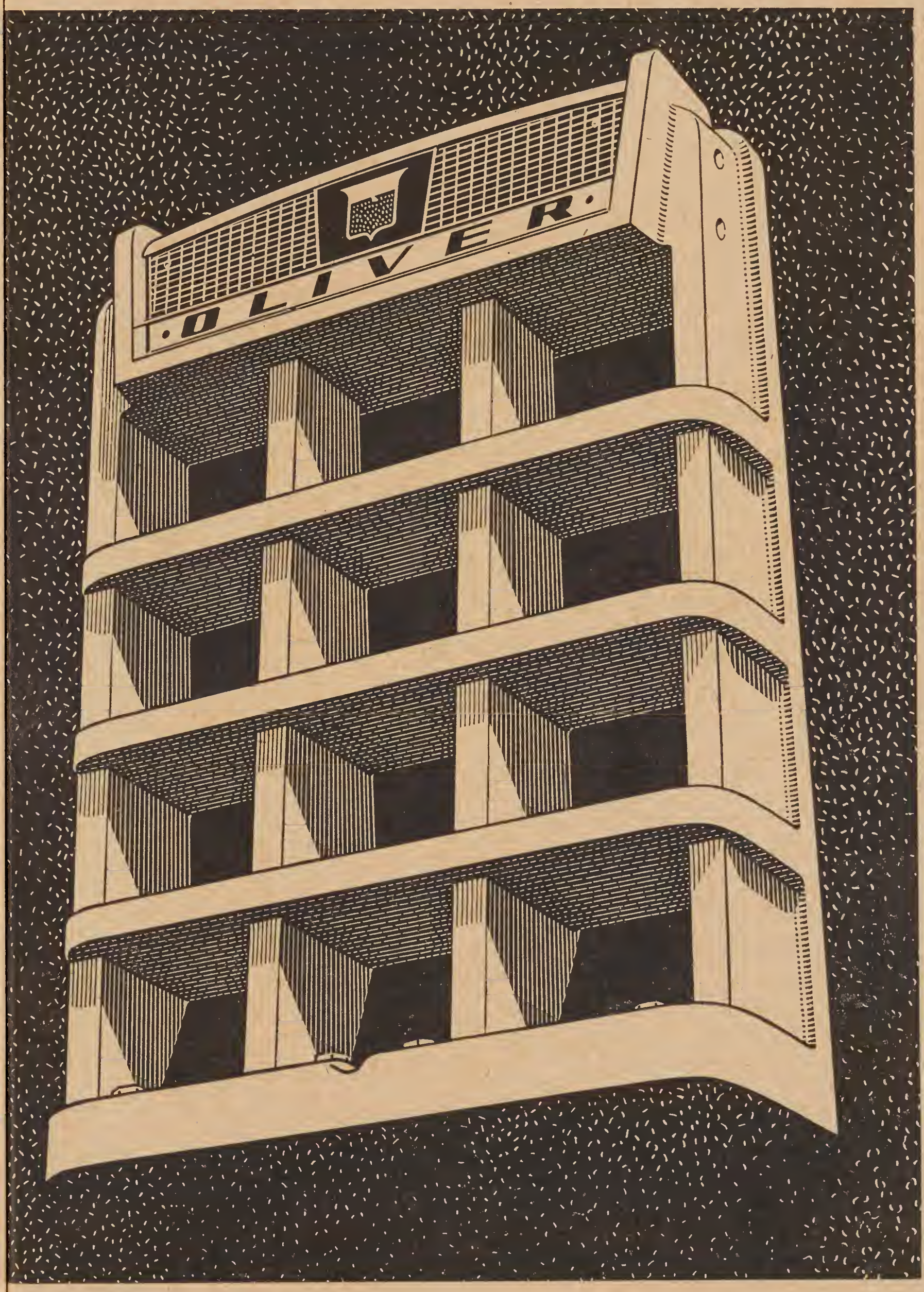
George Baldwin, a Civil War veteran, planted our sugar maple trees when he was mustered out of the army. He planted them along the farm boundaries, and along roads through the farm. It sure makes sap gathering simpler than in a woodlot. Interestingly enough, we don't have anything that would be called a "woods."

Wood for boiling sap from our 600 buckets comes largely from elms that are dying because of the Dutch elm disease. Elm logs can be pretty tough going, but a chain saw makes quick work of them. If we had to cut fuel by hand, we'd have quit long ago. Next year, we're thinking of supplementing our wood fire with some No. 2 fuel oil.

We always blend our table syrup so the taste will be uniform; syrup made from each run will vary just a little. Of course, the last run has a strong flavor and that goes into drums for other than table use.

—*Guy VanDerlinden, Cuba, N. Y.*

Editor's Note — Guy was named Maple Syrup King of Allegany County for '59, '60, and '61.



Thick Corn

We filled our silos from 29 acres of corn in 1961, most of it Ohio K-24. It was the second year this land was planted to corn. It was all in the dent stage; in fact, some of the last that went up the blower pipe was already glazed. Silos filled include one 16 x 50 feet and one 56 footer, 18 feet square.

We figure the plant population was 32,000 per acre in 30 inch rows. All corn land was heavily manured, then 1,000 pounds of 16-8-8 was plowed down ahead of planting. No fertilizer was applied with the planter.

There was one ear per stalk and lots of grain is visible in the silage. We feed about all the silage cows will eat, giving it to them in the morning just after milking and again around noon.

Our milking herd numbers 90 this winter and we'll make over a million pounds of milk in 1961.—*Robert Petzold, Owego, N. Y.*

Potato Growing

We grow about 185 acres of potatoes, use 6-12-6 fertilizer at the rate of 2,400 pounds per acre. All this fertilizer is put on at planting time.

In addition, we sidedress about 45 pounds of actual nitrogen in liquid form just as soon as we can read the rows—the earlier, the better. Where the land is heavy, we go easier on the amount of nitrogen; where it's more sandy, we put it on heavier. Reason for this is the difference in rate of leaching from different types of soils.

Soil tests at least every three years are used to check on lime and fertilizer needs. Sometimes we have to apply lime, but very sparingly because of the danger of scab. Where soil pH is naturally high, the Plymouth variety has proved scab resistant and a good yielder. Although they don't store as well as some varieties, we like them for those fields mentioned.

We use Eptam for nutgrass and it pretty well cleans up all weeds. It doesn't make any problem for the rye cover crop following potatoes.

Rye is planted on all cultivated ground as soon as potatoes are dug. It nails the land down over the winter and helps keep organic matter levels up. We normally let a chunk of it go in the spring and save our own seed.—*Harry Kobylenski, Calverton, N. Y.*



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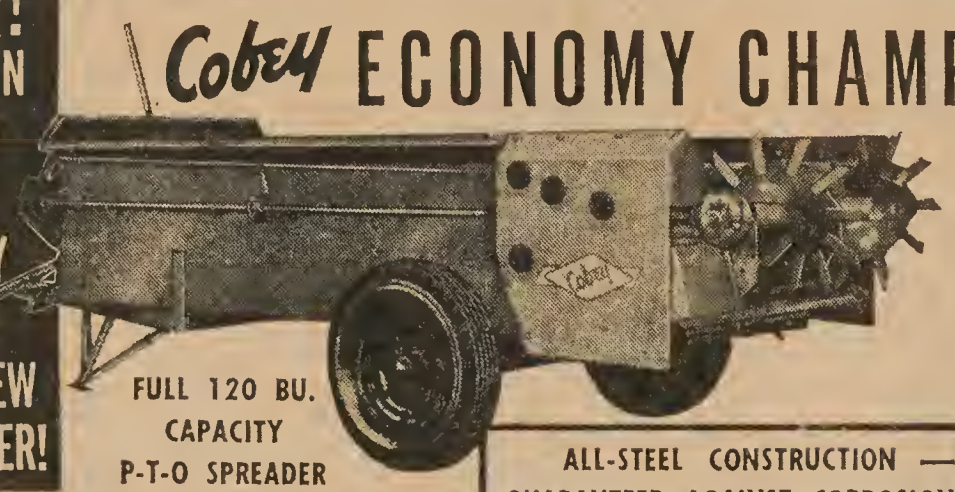
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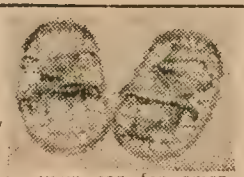
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Choosing Silage Corn

(Continued from Page 1)

Feed Value and Stage of Maturity of Corn

Stage	Dry Matter Tons/Acre	Percent Dry Matter	Pereent Fiber	Percent TDN	Lbs. TDN/Acre
Boot	1.02	10.2	26.97	65.7	1339
Mid silk	2.17	15.1	26.62	65.4	2842
Early milk	2.89	20.7	24.98	65.1	3764
Dent	**4.37**	**26.5**	**20.43**	**70.4**	**6153**
Dry	5.95	38.0	17.27	73.9	8795

The short season farm often produces corn that matures to no more than the early milk stage before being ensiled. Here are the losses: (1) Silage space for storing water instead of dry matter. (2) Fiber is too high in immature corn. (3) TDN is too low.

Where's The Feed?

The cow feed is primarily in the ears—not the leaves or stalk. There seems to be no question about it—**when growing corn silage, aim for well dented kernels.** If you choose a corn variety too late to make the dent stage you are cheating your cows and certainly your pocketbook.

Don't Wait

In the table you will notice that between dent stage and when the corn is ready to husk TDN goes up and fiber comes down. Don't be misled by this fact.

Corn won't pack well if it's too dry. When the moisture in the total plant goes below 70%, packing properly is difficult, and additional water must be added to obtain proper packing.

On the other hand, corn silage carrying 80% water is too wet. For best feed and packing the moisture or dry matter range is more narrow than most people think. This comes back to the old idea that any corn will make silage if it will pack well. We should be just as selective when purchasing corn silage hybrids as when we purchase husking corn varieties.

When selecting proper maturity for silage corn, go one maturity rating later than for husking corn varieties used in your area. Your county agent or seed corn salesman can help you if you specify exactly what you want. However, don't be sold a variety that jumps more than one maturing rating over an adapted husking corn.

How Thick?

Here is a good rule to think about —"keep the population low enough to obtain fully developed ears and high enough to get good tonnage." Research to date emphasizes that for silage you should plant 2,000 to 4,000 plants per acre thicker than for corn grain under the same conditions. Our best corn farmers located on deep soils usually shoot for 18,000 to 20,000 plants per acre for husking corn.

This means that the plant population on deep, well drained soil could go as high as 24,000 plants per acre at harvest time. This population must be scaled down to meet specific conditions such as soil depth, soil acidity, amount of fertilizer used and the variety of hybrid to be grown. However, if you have a good farm, and use soil tests regularly to guide your fertilizer program, it would be a mistake to shoot for less than 20,000 plants per acre.

If you wish to shoot for populations over 25,000 plants per acre you must keep in mind that: (1) ears may fail to form and decreased quality will follow, (2) severe lodging can occur at high populations, and (3) a great deal of wastage may occur if machinery cannot pick it up.

Very High Populations

Penn State's research in capsule form indicates that very high plant populations (50,000 to 100,000) will best utilize light, water and plant nutrients and produce maximum yields of dry matter **if cut at immature stages.** However, as plants approach the desirable stage of maturity (fully dented), the highest TDN yields are produced at conventional populations.

In other words, the apparent advantage of very high populations disappears as the plants mature to proper silage stage. In 1961, some of Penn State's 100,000 population fields were 100% lodged long before proper silage stage. One should not use populations over 50,000 for silage; this should be green chopped before silking.

"High Sugar" Corn

The easiest way to increase the sugar content in corn stalks is to grow stalks without ears. The normal or usual corn plant utilizes its growing power or energy to produce the ear. If we remove the ear by mechanical means or by genetic means, sugars accumulate in the plant and we have a so-called "high sugar" corn plant. The corn breeder finds it difficult to produce a high sugar variety since this genetic factor is recessive and is easily masked out during hybridization.

It can be done, but trying to maintain the high sugar factor along with a host of other desirable characteristics is, to put it mildly, quite difficult. One "high sugar" variety has been tested both at Cornell and at Penn State. Further testing is underway.

To date, the high sugar factor does not appear to be better than the high total digestible nutrient ear in usual corn hybrids. At Penn State, Penn. 602 and a "high sugar" corn were fed to sheep in a digestion trial. There was no statistical difference between the two corn varieties in digestible dry matter, digestible protein or digestible energy.

Dwarf Corn

Agronomists at Penn State have for the past three years compared normal Penn. 602 with its genetic dwarf counterpart for corn silage. Both types of corn were sampled for yield at the milk, soft dough and glazed stages of maturity, and ensiled in small experimental silos. Plants from each variety also were separated for comparison into the components of leaf, stalk, husk and

(Continued on Opposite Page)

Choosing Silage Corn

(Continued from Opposite Page)

ear and analyzed for crude protein, crude fiber, ash, ether extract and nitrogen free extract to determine their relative feeding value.

Leaf-to-stalk and ear-to-stalk ratios of dwarf corn were compared with those of tall corn. In general, dwarf corn has slightly more leaf than stalk; tall corn has only about 80% as much leaf as stalk.

Chemical analysis of green material and of silage from Penn. 602 and from E.S. 602 dwarf revealed very small differences in the content of the various feed constituents. Other studies indicated that silages made from these two corns are nearly identical in energy.

This means that the only other important consideration would be one of yield of dry matter. In this respect the dwarf corn yielded 10% less than its tall counterpart. For this reason alone, there seems to be no use of this particular dwarf corn for silage.

The Changing Scene

Yesterday we had open-pollinated, low yielding corn hybrids; today the vigorous hybrid has little in common with the productive power of its ancestors. Instead of low analysis "sand grade" fertilizers like 5-10-5 and 3-12-6, we have available 10-20-10, 10-20-20, 5-20-20, etc. We don't have to let quackgrass and foxtail take over our cornfields when herbicides like Atrazine are available.

In other words, the farmer can depend on high yielding corn today more than at any time in history. It has advantages that no other crop contains. The best one is that it is the safest of all. Plant it in the spring and be assured, outside of a catastrophe, that it will be harvested and stored for future needs.

In spite of all that has been written about forage crops, one can't erase their glaring deficiency, that of getting them harvested and stored as quality feed. There is enough hay thrown over the hill or used for bedding each five years to purchase everyone a new hay crusher.

There is little or no corn silage wasted except by those who cannot —or are not willing to—invest the proper time and thought to its production. This is no condemnation of grassland farming, but instead a suggestion that more corn silage could be used on many farms to better balance the total feed production program. And in ending, one more thought—**select the variety which will dent by harvest time.**



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Country Pastor

To All the World

By ARTHUR MOODY

IT SEEMS longer than fifty years, and yet, some statements heard then are as clear as though spoken fifty minutes ago. I was privileged to attend a Student Volunteer Convention in Toronto, Canada. Dr. John R. Mott was speaking to a throng which packed Massey Hall. "During the next ten years **we will send a thousand missionaries to Japan, or within a generation we will send a million bayonets.**"



ARTHUR MOODY

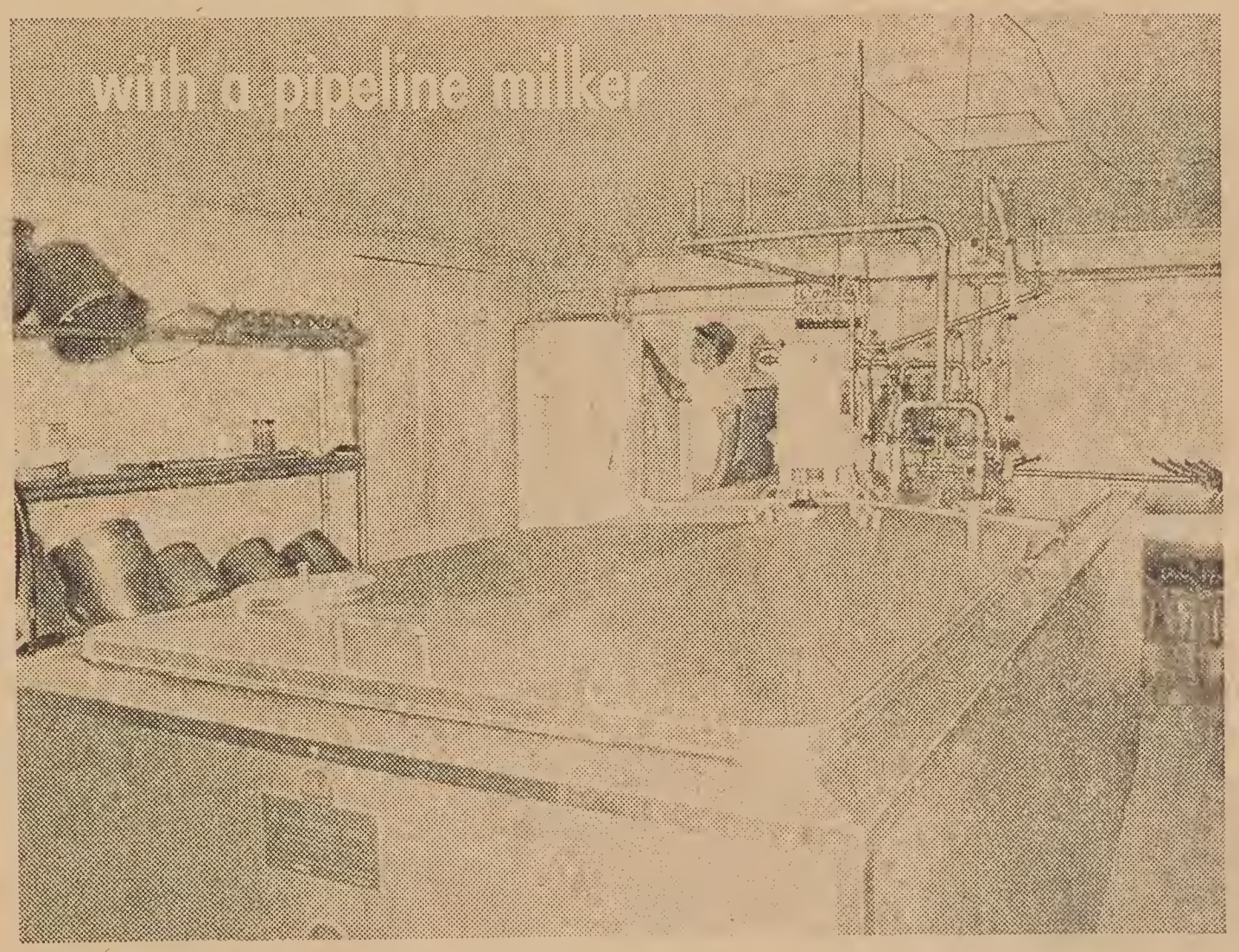
During the late fall of 1941 the Diet of Japan voted on the question of war with the United States. The peace group came within 11 votes of carrying the day. A change of six votes would have resulted in peace. Christian Missions had come **that close to success!**

Why do we **come short of the Glory of Right?** "Go ye into all the world and make disciples of all nations," was Jesus' commission. Have we failed our opportunity? All the generosity was not enough. Did we give money and withhold giving our sons to wage peace under the Prince of Peace?

The World Day of Prayer, Chain of Missions meeting, and Church World Service Programs—of what avail? Do they yield only a cultural, or even an emotional experience? Emotion is no substitute for action. Many a person has felt his duty done when he has announced his good intentions.

Do we hear an echo of Jesus' words, "He that will come after me must deny himself, take up his cross daily, and follow me?" How do we meet that test?

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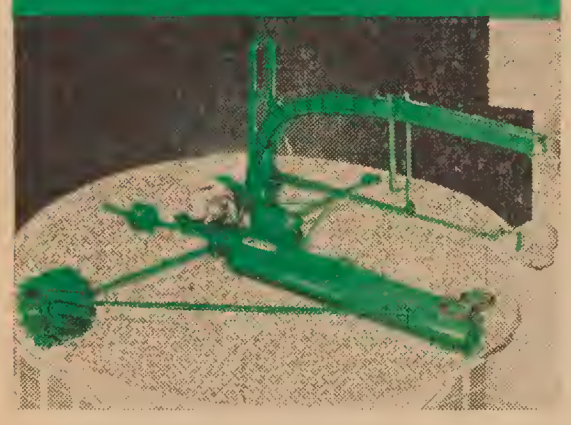
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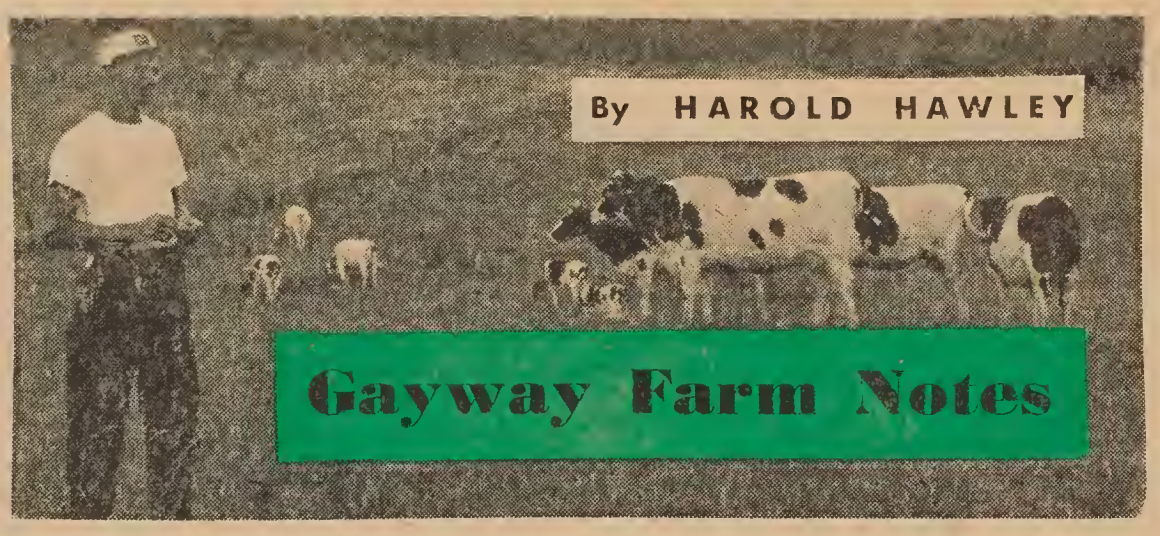
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By HAROLD HAWLEY

Gayway Farm Notes

INVENTORY TIME

THE TALLYING UP of one's assets and liabilities annually sometimes leads to observations one wouldn't otherwise make. Our silage has been fed out at the same rate as usual this fall, yet we have more left than on any January first in several years.

The explanation is the excellent quality of grain-rich silage, with less settling in the silo before we started feeding than ever before. We had an absolute minimum of spoilage (perhaps ½ ton) because a plastic cover had been put on the top prior to starting to feed. We were feeding from the other two silos as we filled them.

The unusually dry condition of corn as it was cribbed is showing up now. Tall cribs, in which corn has settled 18 inches or more in some years, are still almost full. The weight of dry shelled grain per acre was, therefore, larger than one would have guessed at harvest time.

We have kept our hay mows about level in other years, taking the bales out a tier at a time. This year we have intentionally opened up the fronts and are letting gravity help us get hay across the mow as well as down. This got us into some plain and fancy figuring to tell how many bales were left.

MARKETING CHANGE

A new supermarket has just opened its doors in our town. If the management is good, this will make rough competition for the very few remaining independent grocers. To the extent it makes for cheaper or better food for the general public, this is good—good for everyone—including farmers.

As with most change, however, some toes are stepped on, the local merchants the most obvious. Some farmers will lose the chance to sell locally if the supermarket crowds out some independent grocer. There's not so much of it done any more, but it has been a nice thing for some poultrymen to sell their eggs this way.

There was a time when we had hens, not so many years back, and supplied the local A & P store. It was a nice market. The only strain was always to have enough eggs. Once I recall we were a little short and were grasping the eggs so soon after they were laid the hens were complaining—they had no time to finish cackling!

It's quite a thing, though, when a marketing system becomes so good that even a small community like ours has available fresh fruit and vegetables the year 'round—not to mention fresh eggs, milk, and fish. There is no doubt we miss the old-time home town grocer and butcher. But let's face it—only through a highly specialized system of buying, concentrating, warehousing, refrigcrating, and distributing could we enjoy such a healthful, varied dict of high quality at such low cost. Naturally, we don't overlook a top quality product—but we must concede the marketing people do quite a job of bringing it to their display shelves still in top shape.

FALLOUT SHELTERS

It's pretty tough to make intelligent decisions without solid facts Most of us find ourselves either unconvinced of the need for a fallout shelter, or so uncertain as to what it would require that we tend to do nothing.

When it gets to be an issue for a school board to decide as it tries to discharge its obligations, things get pretty rough. Merely to provide protection for as many as 700 persons is bad enough. To provide sanitary facilities, ventilation. food and water, medical care, etc. for them over any period would be a major operation.

Human nature being what it is. one could expect the facilities which were built adequate for the school enrollment and staff to become greatly overcrowded — possibly to the point of suffocation and trampling—once the townspeople crowded in. And who would want the job of keeping them out?

It is my personal opinion, possibly shared by no one else, that it would make more sense to have extra busses or trucks on a stand-by basis so that in an emergency the kids could all be delivered home in 30-40 minutes. I know one thing—we would prefer to have our daughter home with us, regardless of our facilities, than to have her elsewhere, with neither she nor we knowing how the others are faring.

FLOWER GARDEN INDOORS

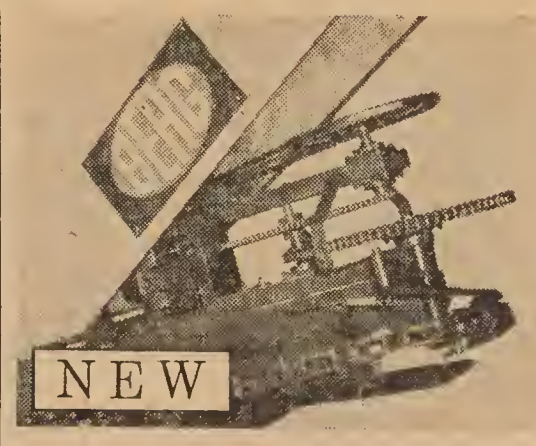
African violets, geraniums, etc., have always added a much enjoyed touch of color and fragrance to our house. A few years ago, Doris got a small start with orchids, and in spite of all the ballyhoo about their very special needs, she has produced some beautiful blooms with little other than tender loving care. It's nice for a "cow milking peasant," as Cap Creal once jokingly referred to himself and other dairymen, to have the privilege of escorting his orchid-corsaged wife to some very special function!

THE LOWLY CALF

Calves seem to come in many sizes and shapes and they also come in every conceivable conveyance. During the last month or so, I have been amazed and sometimes amused to note the many ways there are to get veal calves to the sales stable. Naturally, many arrive in cattle trucks; some in pick-up and small stake trucks. From there on, the type of transportation becomes unpredictable.

A well-dressed lady will drive up

(Continued on Opposite Page)



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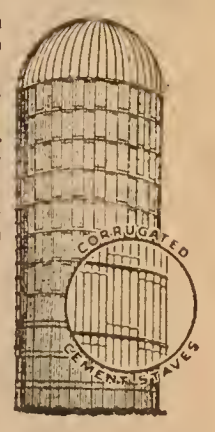
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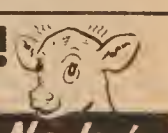


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Shift Up and Throttle Back

By TOM CLAGUE



DO YOU really need a smaller second tractor? Or, if you know how, can you operate a big tractor on light loads so that it will give economy good enough that it's poor business to own a second tractor?

Of course there are many factors involved in whether you should own more than one tractor. But it is true that you can do a lot to improve the "mileage" of your tractor—any tractor, large, or small — just by "shifting up and throttling back."

Throttle Setting

According to studies by agricultural engineers at Ohio State University, the key to maximum efficiency lies in using what they call the "optimum throttle setting." The most inefficient throttle setting that you can use for a light load is wide open, so that your engine just "loafs along." You can improve the efficiency a great deal by shifting up to a higher gear and reducing the engine speed until the maximum power the engine can develop (at that reduced speed) just equals the load.

In one test run at Ohio, engineers increased the efficiency of a tractor 66%, just by doing this. By increasing the efficiency, it is meant that more work was produced per gallon of fuel used than was the case when the tractor was working with the throttle set wide open. The load required only 30% of the maximum power which the tractor could develop, and the engine speed was as low as it could be, and still develop the required power.

The reason for this is simple. An engine has many moving parts, and there is a lot of internal friction that can't be avoided. In general, this friction load is directly related to the distance traveled by the "rubbing" parts—such as the piston rings on the cylinder walls, for instance.

Therefore, the higher the engine speed, the greater the friction load. This means that the faster the engine runs, the more of the power that it produces is required just to overcome its own internal friction. Thus, the slower it can run, and still do the job, the more "mileage" you'll get in terms of total work done per gallon of fuel used.

Now obviously none of this applies to your operation of the tractor when you have it **fully loaded,** as is usually the case with heavy tillage loads. Here, the optimum throttle setting is usually wide open, because you need all the power the engine can develop. But how much of the time do you operate the tractor under full load? This is anybody's guess, but you can be sure that it's a relatively small portion of the total time of operation.

And this is where the economy can come in. Every time you have a job that does not fully load your tractor, you can shift up and throttle back so you'll be operating at the point of maximum efficiency and economy for that job.

Dollars Involved

Just how many dollars are involved in using optimum throttle setting versus the wide open position? The studies show that for a 50 HP gasoline tractor, with an assumed work-life of 11,000 hours, the saving in fuel costs alone would amount to about $700 during the life of the tractor. They arrived at this figure by assuming 2,000 hours at 40 HP load, 4,000 hours at 30 HP load, 4,000 hours at 20 HP load, and 1,000 hours at 10 HP load.

What this all boils down to is that you don't **have** to buy a small tractor for the lighter work. By using the optimum throttle setting with a big tractor, you can often come pretty close to the efficiency of a smaller tractor on lighter jobs—in terms of gallons of fuel required.

And so it might very well be that when you next go to trade tractors that you'd be better off to buy one big, powerful tractor to give you ample working capacity when the weather puts a premium on time—and then use it on light jobs by "shifting up and throttling back." This way, you reduce the total dollars tied up in tractors and get more working capacity per man-hour from the tractor you have.

GAYWAY FARM NOTES

(Continued from Opposite Page)

in a late model hard-top, open the trunk, and out comes a fat Holstein youngster. Or maybe a bag contains one thrashing and churning in the back seat. A couple of nice calves arrived in a tractor-drawn trailer with a crate on it. For variety, a deluxe horse trailer backed up and let out a Guernsey hopeful.

Then there was the fellow who was driving with one hand while he had his other arm wrapped tightly around the neck of a nice young female. He was much too old for that kind of business—and besides, the female was black and white.

If one waited long enough, I suppose he would see someone ride up astride his favorite horse with a calf slung across the saddle—much as we bring our new-borns in from the pasture.



Benedict Chorzelewski, Fonda, N.Y. says "SUDAX" Tops Green Oats, Corn, Grass & Alfalfa in Tonnage

"Last year on 50 acres of 'Sudax' I got 30 tons per acre. I've used green oats, corn, grass and alfalfa for silage and 'Sudax' tops them all in tonnage.

"I started filling a 20′ x 60′ and a 16′ x 50′ silo September 1st and fed 150 Holstein milk cows until November, filling the silos all the time. When the snow fell both silos were full. Milk production is as high now as it's ever been. I'll plant 70 acres of 'Sudax' next year."

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I WAS JUST FIGURING...

—by Cy Watkins



HOW GOOD IS SOW'S MILK?

How good is sow's milk for a baby pig? Well, that depends on several things.

1. The breed and physical condition of the sow.

2. The number of pigs to be nursed.

3. Whether you want to make money on your pigs, or just "get by".

It's a fact, sow's milk can support a few pigs until they're old enough to root up their own chow. It's worked that way for thousands of years . . . especially when only 2 or 3 pigs needed to survive.

But these days, the demand on a sow is a lot greater. Litters are bigger and we want those pigs to get a great start. And sow's milk just isn't good enough to do that kind of job . . . either in quantity or quality.

Nowadays, some folks want to get the pigs off the sow right away . . . and some folks want to use the sow's milk plus a supplement. Either way makes sense, depending on the facilities you have and how intensively you raise hogs.

And either way, Watkins MIN-VITE for Baby Pigs is important . . . because that's the MINeral-VITamin antibiotic pre-mix that supplies the high-level fortification baby pig rations require.

Watkins recommends you mix up the tasty, nutritious pre-starter (fortified with MIN-VITE) and teach baby pigs to eat during the first week. It doesn't take much . . . but it takes up the slack between what the pigs need and what the sow can supply.

Then, after they've eaten about 5 pounds of pre-starter, you taper in the starter . . . also fortified with MINerals, VITamins and antibiotic from MIN-VITE for Baby Pigs.

This is a little extra work, sure. And it costs a little extra . . . but it pays off BIG, just in extra pounds of low cost pork alone. Depending on breed and management on an eight-pig litter, you can expect something like an extra 160 pounds of pork at 8 weeks, for a cost of about $1.16! On top of that, you'll usually save more pigs, and they'll be thriftier when you start pouring in the feed.

The Watkins Swine Program is well worth your attention. Talk it over with our Watkins Dealer, next time he calls.

P. S. — Don't forget the PIG PRYMER . . . new "toothpaste" type treatment for iron deficiency anemia and bacterial scours. It's easy, inexpensive baby pig treatment.

WATKINS PRODUCTS INC. Newark, N. J.

Farm Questions Answered

Will adding molasses to poor hay increase hay consumption? How do you use it?

Adding molasses is one way to get cows to eat more poor hay. Dilute molasses with an equal amount of water and sprinkle it on hay in the manger. Don't use over 2 to 3 pounds per cow per day. Other ways to increase hay consumption include liberal and frequent feeding so cows can pick over the hay, and perhaps feeding high quality hay once a day.

How much cash rent should a farmer pay for farms and land?

About 8-12 percent of the property's value, covering interest on investment, repairs, insurance and taxes. This figure is arrived at by allowing 5% for interest, 2.5% for real estate taxes, .5% for insurance on buildings, and 2% for repairs.

There is no set percentage for repairs and insurance, because the conditions of the buildings and other facilities will vary in each situation. Roughly, the cash rent for a farm with a good set of buildings might reasonably be 10%-12% of the value. A $15,000 farm might rent for $1,500 to $1,800 a year, for example.

Cash rent for land alone is usually 7% or 8% of the value. For example, land that would sell for $100 an acre would rent for $7 or $8 an acre.—*Professor C. A. Bratton*

What can be done to prevent scours in vealing calves?

Antibiotics added to milk for the first three days after arrival of the calves should reduce the severity of the problem. Then the use of antibiotic, broad spectrum type, in the milk for another two weeks should go a long way towards preventing the failure to make rapid gains. This latter type of antibiotic is sold by various companies in a powder form to promote growth, and does actually have a medicinal effect also in young animals. It should not be used the last few days before these calves are killed for veal.

Individual calves may require special medication in the form of fluid therapy if they are seriously ill. Fluids are put into the calves with a small stomach tube, or injected.

Unfortunately, there is not any one sure cure or certain prevention of this problem. Housing calves in several different areas is helpful. This means that when a new calf arrives he does not expose all the calves to the bug he may be spreading. This can work both ways in that he may also be protected from picking up infections from other calves

Some people have success in summer months housing calves in individual movable pens outdoors on the grass. A temporary roof on part of the pen is used for shade. This does not lend itself to letting the calves nurse cows; they have to be pail fed.

Regulation of the amount of milk each calf drinks or sucks is highly desirable, and keeping calves that are healthy away from areas where sick ones are or have been is very important.—*M. G. Fincher*

Can you give me some suggestions as to how to make our cellar less damp?

I believe I would consider first the placement of concrete on the floor to achieve a drier cellar. If possible, place an inch or two of coarse 1 to 1½ inch stone over the floor before casting the concrete. It is perfectly acceptable to do this a slab at a time, as time and money permit.

While many kinds of road binders and airport runway binders have been used, their main value has been to achieve a less dusty and less erodable surface rather than to resist water permeability. I wouldn't suggest them for your situation.

If you have any free water present at any time, I would suggest that this be drained off through or under the foundation to a lower elevation, using drain tile.

—*E. W. Foss*

Will grazing on trefoil cause sheep to become sterile?

The results obtained from a few experiment stations indicate that ewes which are grazing trefoil pasture will have delayed conception. The extra hormones supplied by the trefoil have been expected to cause the problem, but conclusive proof is not yet available on the subject. It would be advisable to graze a native grass pasture during the breeding season, or possibly place the ewes in a barn lot and feed them a little grain and hay. It is believed that this delayed conception, caused not only by trefoil but other legumes, is a temporary problem.

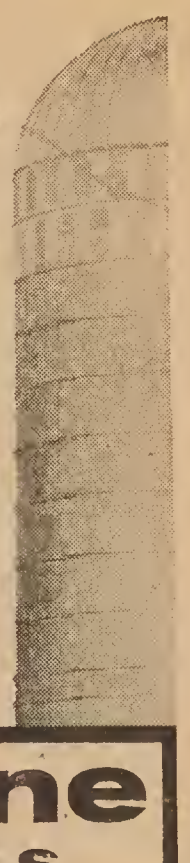
—*Warren Brannon*



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Ross Eckert, West Winfield, New York, uses a "mechanical cow" to feed calves a powdered calf formula combined with water.

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FARM MEETINGS . . .

VEGETABLE GROWERS The New York Vegetable Growers Association re-elected the following officers at the recent meeting in Syracuse held during the Empire State Farm Show: president, Philip Luke, Fulton; secretary-treasurer, Harold Henry, Eden; vice-presidents: Howard Mills, Baldwinsville, greenhouse; Donald Bradley, Elmira, truck crops; Stuart Allen, Waterville, processing crops; Severyn Hasbrouck, Hurley, sweet corn; Fred Eaton, Hubbardsville, potatoes; Stanley Wiecek, Goshen, muck crops. Directors are: Elmer Agle, Eden; Frank Losurdo, King Ferry; John Youngs, Glen Head.

AGRICULTURAL SOCIETY On Wednesday, January 10, the New York State Agricultural Society will meet at 10 a.m. in Hearing Room No. 1 of the State Office Building, Albany. Speakers for the forenoon session include A. W. Gibson and E. H. Fallon of Ithaca. The afternoon program features a discussion of "The Impact of Government Upon New York State Agriculture" led by four Empire State farmers: A. B. Burrell, Peru; Robert Greig, Red Hook; James Colby, Spencerport; and regular AMERICAN AGRICULTURIST contributor Harold Hawley of Weedsport.

Society president Tom Milliman will preside at an evening banquet beginning at 6:30 p.m. at Albany's Dewitt Clinton Hotel. Governor Nelson Rockefeller will be the speaker, and will present citations to the following Century Farm families: Broome County, Mrs. Eva Lawrence and sons Frederick and Eugene, Conklin; Herkimer County, Mr. and Mrs. William G. Robens, Poland; St. Lawrence County, Mr. and Mrs. Donald Stacy, DeKalb; Seneca County, Mr. and Mrs. William Hudson, Romulus. Presenting the families to the Governor will be the following members of the Century Farms Committee: for Broome County, Halsey B. Knapp, Stony Brook, L. I.; Herkimer County, Thomas Albright, Athens; St. Lawrence County, Louden K. Daniels, Hammond; Seneca County, Warren W. Hawley, Batavia.

These families are chosen from a list largely submitted by the county agricultural agents of the State. Farms must have been in the family for 100 years or more, and the present operators must be good farmers and active in their communities.

The meeting is open to the public without charge; a moderate charge is made for the banquet, and tickets may be obtained from Spencer G. Duncan, Bureau of Markets, Department of Agriculture, Albany, N. Y.

BARGAINING AGENCY Ward Phelps of Covington, Pa., is the new president of the Metropolitan Cooperative Milk Producers Bargaining Agency, succeeding James A. Young, Sr. of Angelica, N. Y., who declined nomination this year after 12 years in the office.

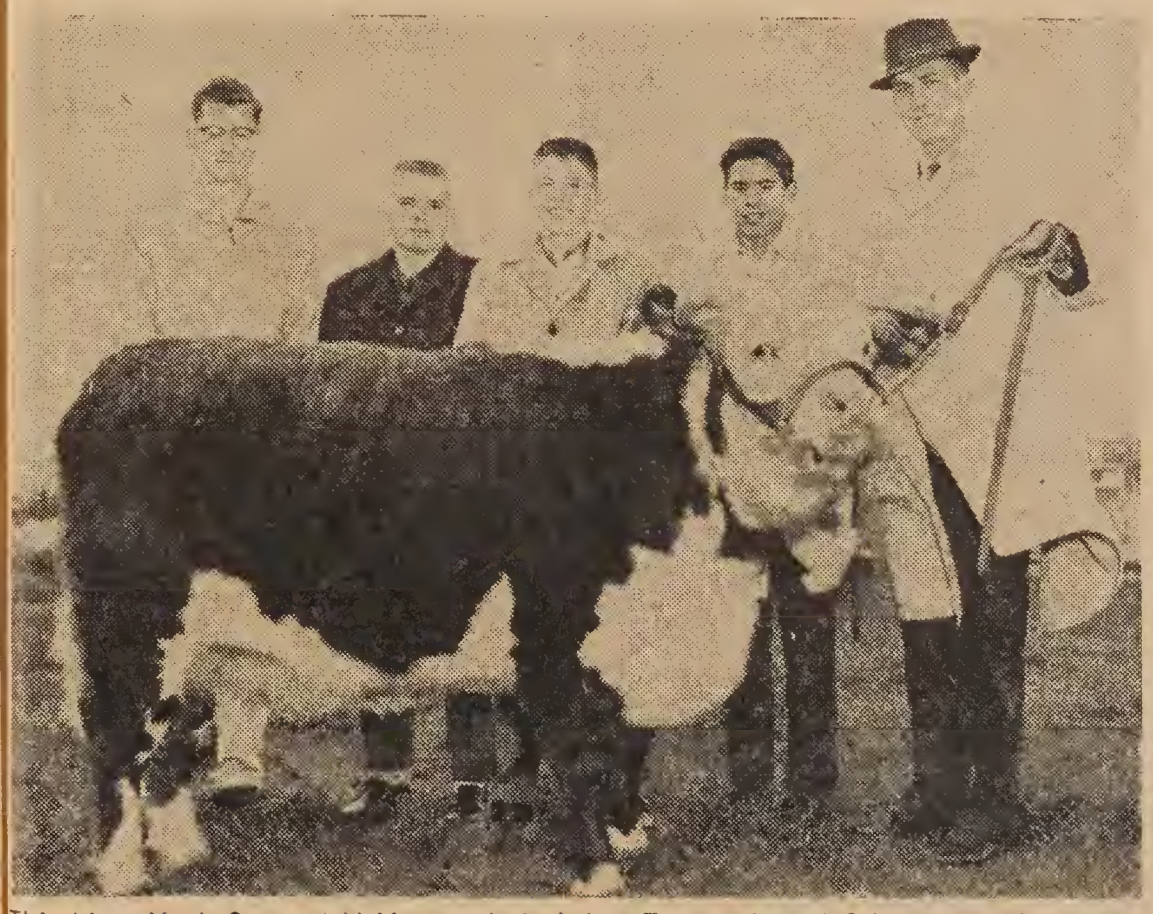
Other directors elected are: first vice-president, John B. Holloway, Amsterdam, N. Y.; second vice-president, Glenn Talbott, Fillmore, N. Y.; treasurer, Abner H. Risser, Bainbridge, Pa.; secretary, Howard Burdick, Andover, N. Y.

JOINT MEETING On January 16-18 Rochester War Memorial, N. Y. will be the setting for the joint meeting of the New York State Horticultural Society and the Empire State Potato Club. There will be a speaking program to provide the latest information for growers, as well as a large trade show with more than 90 exhibitors.

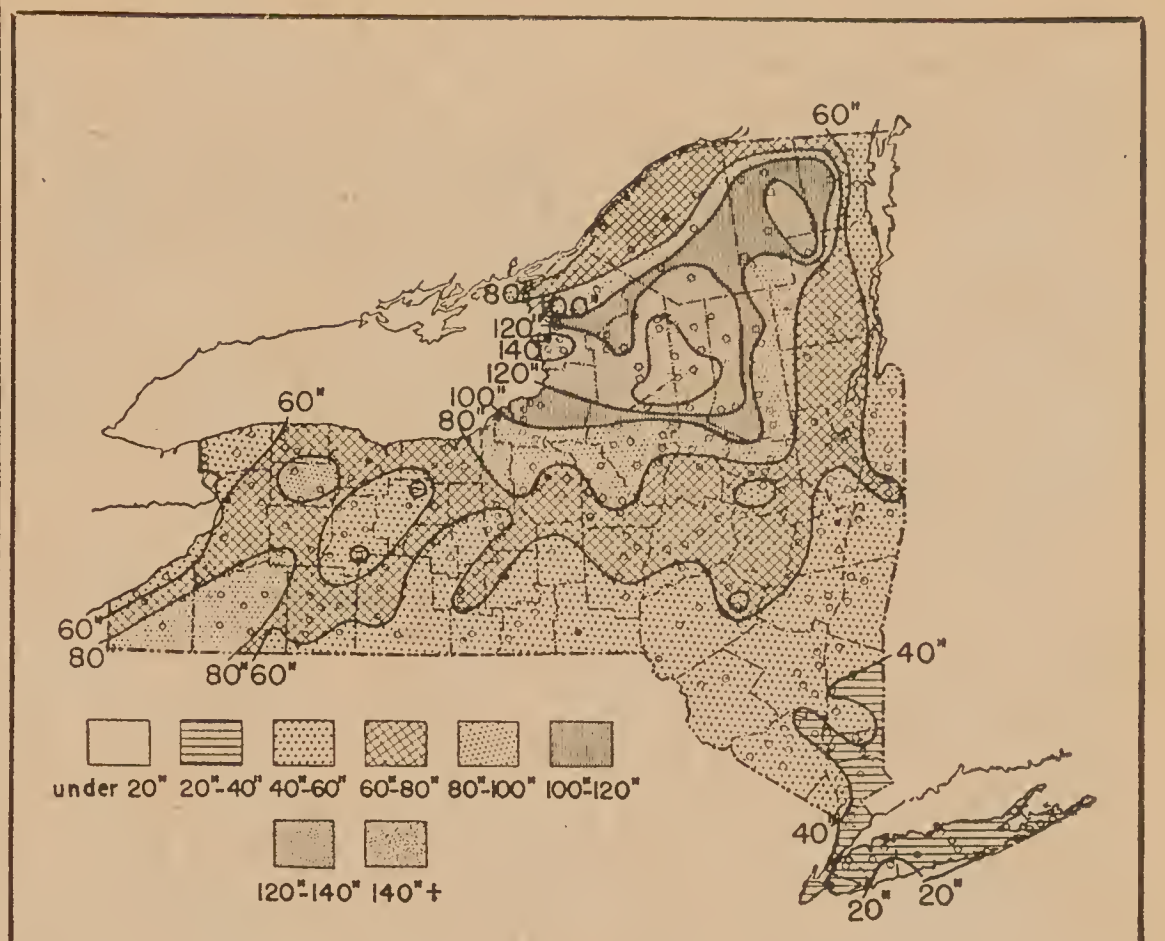
The Kingston meeting of the Horticultural Society will be held at the Kingston Armory on January 23-25.

MUTUAL MEETS Some 500 delegates of the Mutual Federation of Independent Cooperatives, together with dairy industry officials and other agricultural leaders, will meet on January 17 at Hotel Syracuse, Syracuse, N. Y.

The all-day meeting will cover business matters, such as election of officers, etc., a farm youth panel program, an informal reception for directors and guests. At the evening banquet the featured speaker will be Murray D. Lincoln, president of the Nationwide Insurance Co. of Columbus, Ohio, and an exponent of the farm cooperative concept.



This New York State 4-H Livestock Judging Team placed 8th among 29 teams competing at the National Contest in Chicago, Illinois. The team was made up of: left to right, Thomas Sloan of Cortland County; Robert Hunt, Tompkins; Brian Stewart and Steven Fisher, St. Lawrence; and Professor Dennis Hartman, coach, Cornell University.



What's Your Mean Annual Snowfall?

Depends on where you live.

In the "snow belt" east of Lake Ontario, you can expect 140 inches or more! In southeastern New York, 20 to 40 inches.

To Cornell meteorologists who compiled the map, the "mean" is the mid-point of many years' records. To others, any amount of snow is just plain mean!

For everybody, official forecasts of amount of snow and other weather factors come to you on WEATHER ROUNDUP at 6:25 and 7:15 A. M., 12:15 and 6:15 P. M. over these stations:

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Hornell	WWHG-FM	105.3 mc.
Ithaca	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Plattsburgh	WEAV-FM	99.9 mc.
Troy-Albany-Schenectady	WFLY-FM	92.3 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

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Binghamton	WKOP	1290 kc.	Poughkeepsie	WKIP	1450 kc.
Boonville	WBRV	900 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Remsen-Utica	WREM	1480 kc.
Elmira	WENY	1230 kc.	Salamanca	WGGO	1590 kc.
Hornell	WWHG	1320 kc.	Sayre, Pa.	WATS	960 kc.
Ithaca	WTKO	1470 kc.	Schenectady	WGY	810 kc.
Jamestown	WJTN	1240 kc.	Scranton, Pa.	WEJL	630 kc.
Newark	WACK	1420 kc.	Syracuse	WHEN	620 kc.
New York	WQXR	1560 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Walton	WDLA	1270 kc.
Olean	WHDL	1450 kc.			

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CATTLE HEALTH BULLETIN

CALF SCOURS IN YOUR HERD? THIS KILLER CAN BE LICKED!

This acute, highly infectious and deadly disease of young calves is characterized by profuse, watery, light-colored bowel movements. Several bacteria, including *Eschcrichia coli*, organisms of the *Salmonella* group, and a virus *(Myagawanella bovis)* have been incriminated as possible causes of infection.

Some outbreaks of scours occur (in the presence of one or more of these infective agents) as a result of the lowering of the calf's resistance. This may be due to one or more factors, such as improper disinfection of the umbilical cord at birth, failure to supply an adequate feeding of colostrum or first milk, poor diets or faulty feeding habits, deficiency of vitamins A and D in the dam's diet, sudden changes in the weather, and undue exposure to cold, drafts or unsanitary quarters.

Affected calves, weakened by the persistent scouring and dehydration, are particularly susceptible to fatal outbreaks of pneumonia. Recovered animals are sometimes unthrifty in appearance and are slow in making normal weight gains.

TREATMENT WITH SULFASTREP HELPS CUT LOSSES

The TREATMENT of scours can be effectively carried out with SULFASTREP® *Boluses. These boluses contain three hard-hitting drugs with a wide range of antibacterial activity. Two of these drugs . . .* SULFATHALIDINE® *and streptomycin . . . go to work in the gut itself where they are most needed. The third drug, sulfamethazine, gets into the bloodstream to help check infections that "spill over" into the circulatory system.* SULFASTREP *also contains kaolin to adsorb bacterial toxins and provide a protective coating for the intestinal tract to help shorten recovery time.*

DON'T LET SCOURS GET STARTED

Sanitation, warmth and proper feeding are key factors in *preventing* outbreaks. Disinfect the navel with tincture of iodine at time of birth. Make sure the calf has an adequate supply of colostrum for at least 24 hours after birth. Try to avoid overfeeding or exposure to cold, drafts and sudden temperature changes.

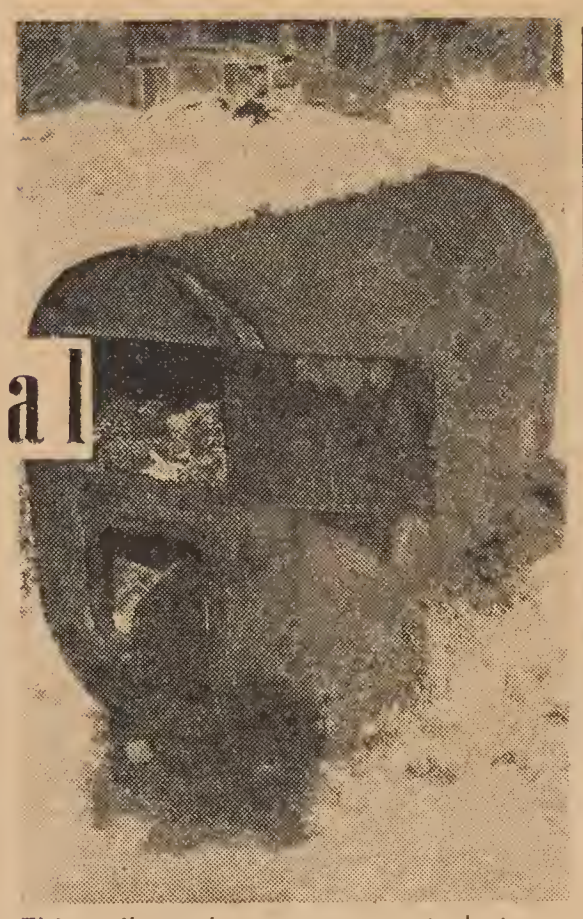
Give 1-2 SULFASTREP Boluses *to calves daily for 3 to 5 days after birth. Extra Vitamin A and D Mixture, a Merck product, may be fed to cows during the last three months of gestation.*

NOTE: For best results with SULFASTREP *and other Merck Animal Health Products, consult a veterinarian for diagnosis and advice before administering.*

Merck Chemical Division, Merck & Co., Inc., Rahway, New Jersey.

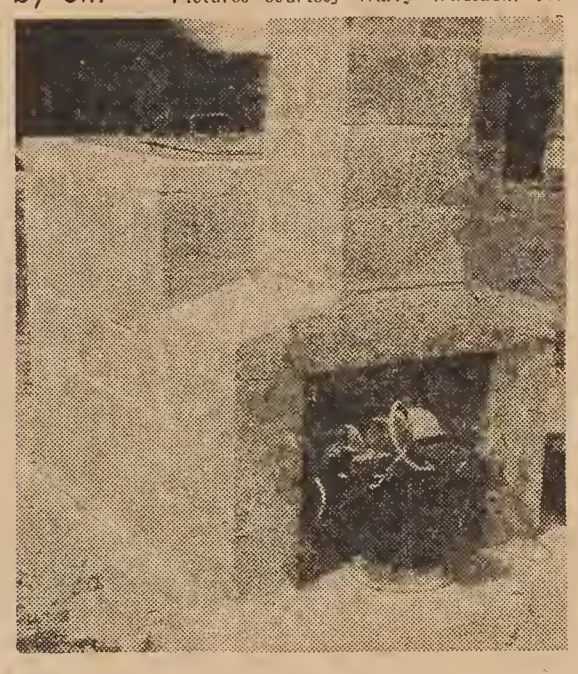
Dead Bird Disposal

By GORDON CONKLIN



This oil tank was converted to a wood-fired incinerator.

Here's a cinder block incinerator fired by oil. —Pictures courtesy Harry Whelden, Jr.



SOME POULTRYMEN dispose of dead birds by incineration. Incinerators vary from specially built ones that use an oil burner gun all the way to an old chunk stove out in the brush.

Others prefer disposal pits where natural decomposition returns "dust to dust." There are no operating costs to this method, no need to start a fire each time, and no fire hazard. Main disadvantage is that pits can fill up, or poorly drained soil makes them impractical.

With the help of Harry Whelden, Jr., poultry specialist at the University of Maine, we've pulled together some information on disposal methods. Two incinerators are pictured: following is more information.

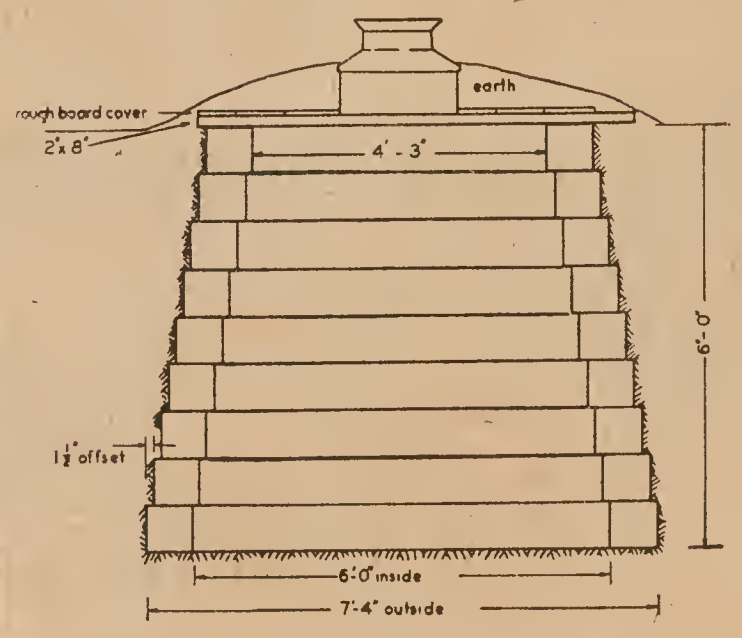
To build a disposal pit, follow these steps.

1. Dig a circular hole approximately 7½ feet in diameter and 6 feet deep.
2. Mark off a circle 6 feet in diameter on the bottom of the hole, and lay the first row of eight inch x eight inch x 16 inch concrete blocks outside of this line.
3. Nine courses of block (approximately 108 blocks) are needed to build the pit up to ground level. **Each course should be set in toward the center 1½ inches.** This can be accomplished by using one-half block less in each succeeding row.
4. Set an 8 or 12-inch tile on two 2 x 8 inch planks laid across the top. An old milk can, cut in half, can also be used.
5. Cover top of pit with rough boards. If you wish, pour a concrete slab 3 or 4 inches thick on top.
6. Cover all but the top of the tile or milk can opening with soil.
7. Provide a cover for opening (inverted pail or can, board, sheet metal or milk can lid).

Size of pit depends upon flock size—a pit 6 feet deep and 6 feet in diameter will handle normal mortality from 10,000 broilers or 2,000 layers. Plan on 70 to 80 cubic feet of pit space per 1,000 layers or 5,000 broilers. Two pits work best so disposal can be alternated between the two.

Leroy Brown, county agent in Maine's Waldo County, reports that Raymond Roberts, of Brooks, has used a pit successfully for several years. He built a 10 feet x 14 feet x 6 feet pit with concrete walls; in the top he left six holes. All but one hole is tightly sealed until the dead birds begin to pile up near the hole. This hole is then sealed and another opened. In such large pits, the general recommendation is that there be a hole for each 36 sq. ft. of pit area.

No chemicals should be added to the birds; natural decomposition takes place best without any "help." Drainage away from the pit should be good; make it shallow enough so water doesn't normally stand in the bottom.



A pit topped by an old milk can makes a good disposal method. Note details of construction.

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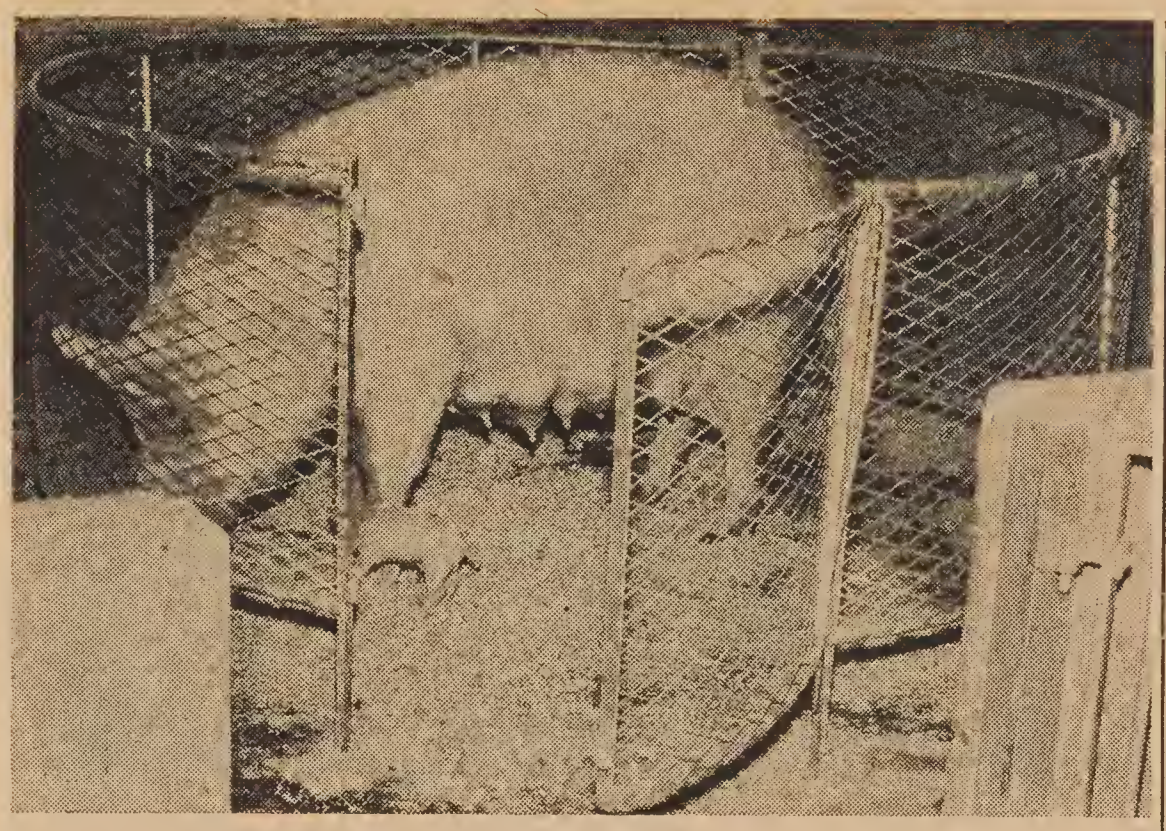
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Now you can get FREE HOT WATER from your bulk milk cooler by installing Thriftchanger for details, write:
Sturges Heat Recovery, Inc.
Stone Ridge, New York
FARM BETTER ELECTRICALLY



New Farrowing Stall

THE use of farrowing stalls for sows has been widely accepted. However, researchers at the Nebraska Experiment Station found that sows farrowed in **pens** with guard rails weaned approximately one more pig per litter than those farrowed in stalls. In addition, the average weaning weight for pen-farrowed pigs was three pounds more than for those stall-farrowed.

Professor E. R. Peo, University of Nebraska livestock specialist, has been experimenting to find out if unnatural restrictions of stall farrowing may be part of the problem with stalls. Conventional type stalls (rectangular-shaped) do not allow sows to obey their natural nesting instincts, so Peo tried round stalls.

The round stall has all the advantages of a conventional stall, plus the additional advantage of allowing the sow to obey her natural instincts at farrowing time. Four of seven sows fought to get out of the rectangular-shaped stall, but none fought the round stall. Nine percent of the pigs farrowed by sows in rectangular-shaped stalls were born dead as compared to 4.3 percent for those farrowed in round stalls. Four of the sows in rectangular stalls required hormone therapy to stimulate milk flow but only one sow in the round stall required treatment.

No disadvantage relative to effect on sow performance was observed with the round stall when compared with the rectangular-shaped stall. The only disadvantage that **has** been noted with the round stall is that it requires more building area than a conventional stall. However, from a management standpoint, sows are easier to take care of in a round stall. Thus, it appears that the advantages of a round stall more than outweigh its disadvantage.

The Nebraska stall is 77" in diameter, 36" high, 9" from the floor and is constructed of pipe and 16 gauge expanded metal. Since two removable pins hold the stall together, it is easy to take apart for cleaning and storage.

Buy Better Beef Bulls

By MYRON LACY*



ONE THING is sure, a beef cattleman pays again for a poor bull every time a calf is sired. Some good breeders advise that you should never pay any attention to price until **after** you find the bull you think will improve your herd; then is the time to ask the price. Be sure to take the bull home if the seller prices him within reason.

Quite often the statement is made that the bull is half the herd. If you have 30 commercial beef cows worth $200 each, your herd bull is balanced against $6,000 worth of females; in case you have good quality registered cows the figure is much higher. In following this line of reasoning few, if any, breeders ever pay too much for a herd bull.

Of course, price does not make the bull—paying a lot of money does not always mean you are getting a good sire. But, generally speaking, the average buyer is probably too price conscious and too often will take the cheaper priced bull even though he has to sacrifice some in type and quality.

(Continued on Page 23)

*Professor of Animal Husbandry, Cornell University, Ithaca, N. Y.



MILK STRIKES — consumers and producers should be protected against interference with a constant milk supply.

The Bargaining Agency Delegate Body voted to support legislative action on this important point.

You can help by letting your state legislators know how you feel.

Your Bargaining Agency acts in the best interests of dairymen. Join the cooperative in your area represented by the Bargaining Agency.

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Morrison Hall • Ithaca, N. Y.

Aids Longer Milking Life: NEW

KOW-KARE

Features 8,000 Units Vitamin A and 10,000 Units Vitamin D per ounce

Latest nationwide field and test evidence reveals substantially increased Vitamin A materially assists in high production, vigorous health, better breeding. Also increased Vitamin D for proper calcium, phosphorus and feed utilization, better calf development. With KOW-KARE'S potent Vitamins A, D and E, plus minerals and tonic drugs, proper daily nutrient balance is assured. Assist in high production, better breeding, longer milking life; help increase profits. Buy modern KOW-KARE at farm and drug stores. Excellent for feedlots; write for NEW TON PRICE.



FREE COW BOOK

Helpful Illustr. "Care & Feeding of Dairy Cattle", write

DAIRY ASSOCIATION COMPANY

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SAVE 33%...Buy 50 lb. Drum



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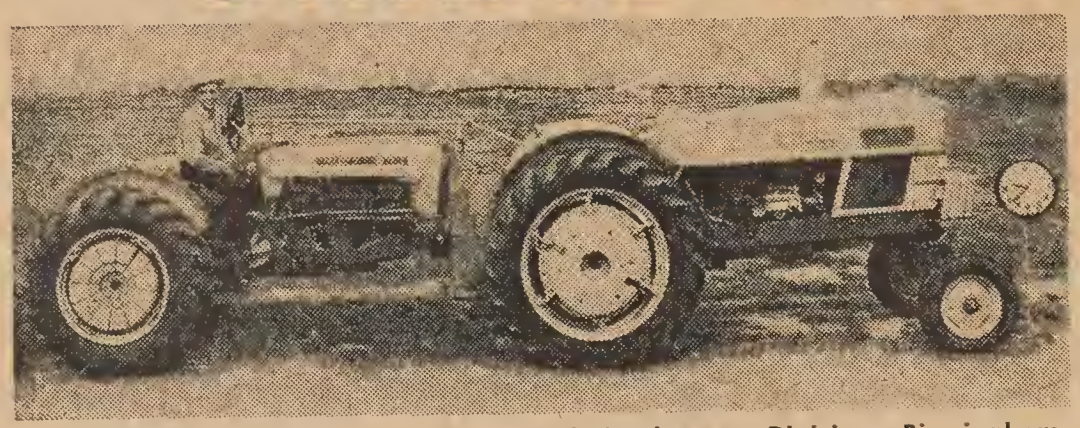
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1962 CATALOG *now ready*

With AMERICAN AGRICULTURIST Advertisers





FORD MOTOR COMPANY'S Tractor and Implement Division, Birminghom, Michigan, hos developed o tandem tractor hookup copable of pulling seven or eight bottom plows; for other field work its two power units can be used independently. Basic unit needed for this low cost answer to infrequent high-horsepower demonds is the Ford 6000 tractor. Its powershift transmission con readily be remotely controlled; any conventional farm tractor can be used as the reor unit.

With the attoching kit the conversion con be mode by one man in less thon on hour and a holf. This enables the operator to sit on the reor tractor ond steer through the front troctor's front wheels.

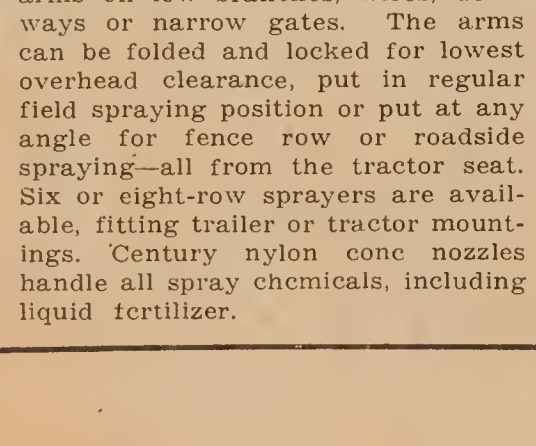
A portable crop dryer—the JOHN DEERE 98—provides an air-delivery range of 5,000 to 22,000 cubic feet per minute. The rate is adjusted by changing the pitch of the fan bladcs.

The single-fire LP or natural gas burner is adjustable for efficient combustion within a temperature rise range of 10 to 200 dcgrees and an automatic regulator controls fuel flow to hold thc selectcd drying temperaturc accurately.

It has a high standard of safety and can be operated eithcr on the transport chassis or mounted on a fixed base. Manufactured by Deerc & Company, 3300 River Drive, Moline, Illinois, it is available either with a 5 or 15 horsepower motor.

A "long reach" all purpose elevator from NEW IDEA FARM EQUIPMENT COMPANY has a unique truck design which permits more overhang at any elevotion. Available in six lengths from 26 to 51 feet, the elevator is perfectly bolanced for easy one mon plocement. A super-efficient winch roises or lowers the elevator quickly ond eosily.

A 20½" wide trough with closely spaced, cupped elevator flights provides high capocity at steep ongles. Flights, troughs spouts ond hoppers ore galvanized for long life.



Introduction of diesel power in medium and heovy-duty models and two new lorger displacement engines ore highlight feotures of the 1962 CHEVROLET truck line.

Diesel power is supplied by a 130 hp., 212 cu. in. G.M. two-cycle four-cylinder engine. With a high rotio of horsepower to weight, size, and displacement, it offers lower fuel costs, long life, and reduced maintenance. An alternating current generator is stondard equipment.

CENTURY'S 3-section boom sprayer ends annoyances of catching boom arms on low branches, wires, doorways or narrow gates. The arms can be folded and locked for lowest overhead clearance, put in regular field spraying position or put at any angle for fence row or roadside spraying—all from the tractor seat. Six or eight-row sprayers are available, fitting trailer or tractor mountings. Century nylon conc nozzles handle all spray chcmicals, including liquid fcrtilizer.

A fucl cell demonstration kit that produces clectricity from chemical reactions was developed in response to requests from many science teachcrs and students in view of limited text material on this subject and is available from the ALLIS-CHALMERS MANUFACTURING COMPANY, Milwaukee 1, Wisconsin. This kit turns chemical energy into electric energy sufficient to operate a 1-½ volt motor for about 15 minutes on one fueling.

Under the sleek-lined fiberglass skin of its newest research tractor, INTERNATIONAL HARVESTER COMPANY, Chicago, Illinois, hos poired a gos turbine engine with o hydrostatic transmission. The Company believes this may be the first time the combination has ever been tried in a farm ond utility tractor.

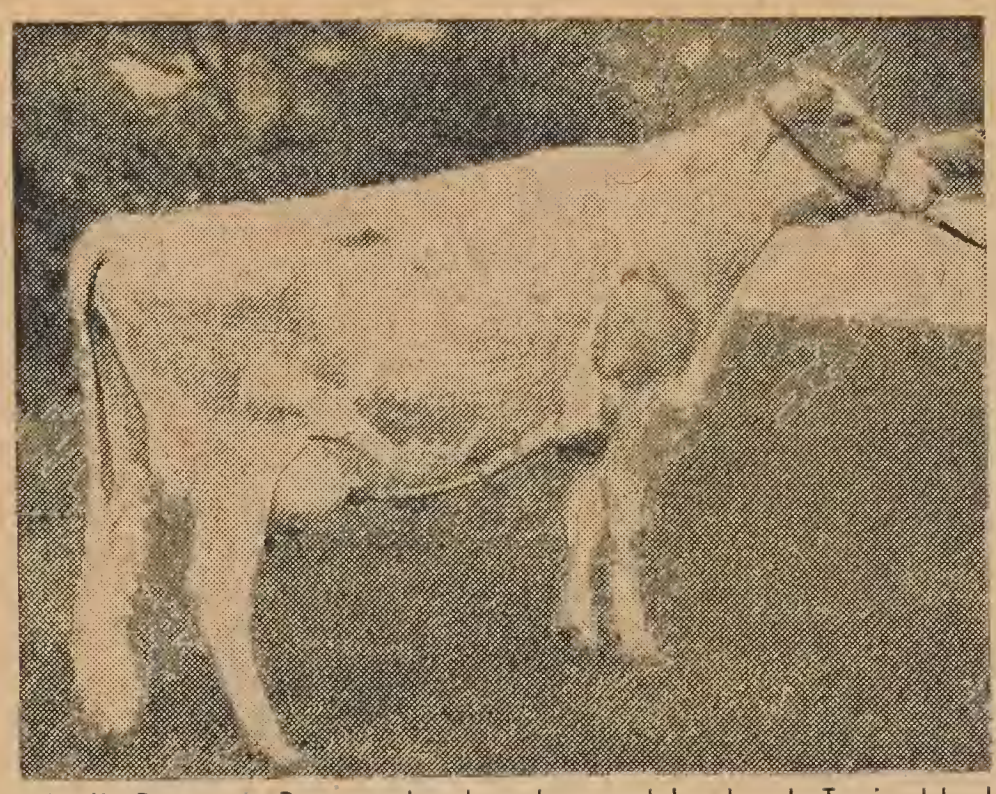
Called the HT-340, this striking concept of things to come in the troctor line hos no gear shift lever, no throttle, no brake or clutch pedals. It uses neither cooling woter nor onti-freeze, ond it hos no tronsmission geors.

Since 1956, over 52,000 automobiles have been converted to LP-Gas, according to the NATIONAL LP-GAS COUNCIL. Reasons for the trend are economy, convenience, and an extra dividend of power.

Most of the savings are in fuel costs. Although the price of LP-Gas varies regionally throughout the U. S., it is generally well below that of premium gasolines. And because LP-Gas enters the combustion chambers as a pure, dry vapor, there are no unneccssary liquids to trap dirt. The oil stays cleaner up to twice as long and sharply cuts mechanical wear caused by crankcase sludge.

STANDARD EQUIPMENT, INC., Bel Air, Moryland, has o new product, the "Eosy-All" silo unloader. For maximum copacity, it feotures double ougers which turn inward to build on even ridge of siloge between them, ond deliver it smoothly to the impeller. Self-cleoning wall cleaners slice ice and frozen silage and special throwing fingers lift silage from impeller to conveyor without greot expenditure of power. The conveyor drops silage gently down the chute without weor or damoge to the metol surfaces.

Three-position wheel mounts are a new standard feature of the Cure-all hay conditioner manufactured by GEHL BROTHERS MANUFACTURING COMPANY, West Bend, Wisconsin. When positioned on the rear mounts the wheels travel clear of even the tallest, rankest crop for clean pick-up and wrap-free conditioning. Front positions are suitable for light or medium crop conditions; balanced design provides easy one-man hook up.



Ideal's Beacon's Rosette, bred and owned by Jacob Tanis, Ideal Farms, Augusta, New Jersey, recently shattered all previous lifetime milk production records for the Guernsey breed. She is the first cow of the breed to exceed 200,000 pounds of milk on official test.

Dairymen In The News

HERE are some dairymen — and dairy cows—that have been making news lately:

Tons of Milk — The career production of eight registered Holstein cows in New York State recently topped 170,000 pounds of milk. Owners of these animals are: Charles DeLong, Mexico; Weed Brothers, Ballston Lake; Ceylon Snider, Fillmore; L. W. Irish, Fruitlands Farm, Valatie; H. J. Szold, Washingtonville; Henry Faryna, Perry; Howard Sisson, Sherburne; Fred N. Dorn, North Chatham.

Jersey Sale — Thirty-eight head of registered Jerseys were sold in the last All American Jersey Sale for a sale average of $1,633. Top selling female, at $2,750, was Marlu Milestone Spring, consigned by Marlu Farm, Lincroft, New Jersey.

Advancer Record Jester, also bred at Marlu Farm, and now owned by the American Breeders Service, has been named a Century Sire by the American Jersey Cattle Club. This is the highest possible rating a registered Jersey bull can receive.

Guernsey Show—The Empire State walked off with the laurels in the state herd contest at the last National Guernsey Show. Top Junior Yearling Bull was exhibited by co-owners Alton Dewan, Oneida, New York, and L. W. Sheldon and Sons, Fulton, New York.

Silver Sires—Three New York bulls have qualified as Silver Medal Type Sires under the Holstein-Friesian Association of America's new plan of daughter-dam comparisons based on type classification scores. They are owned by Raymond Albrectsen, Ithaca; one owned jointly by Richard W. Pearce, Auburn and Wesley Engst & David L. Morrow, Aurora; and Dale G. Stocker, Homer.

Earl V. De Long, Mexico, New York, has a bull recently designated a Silver Medal Production Sire.

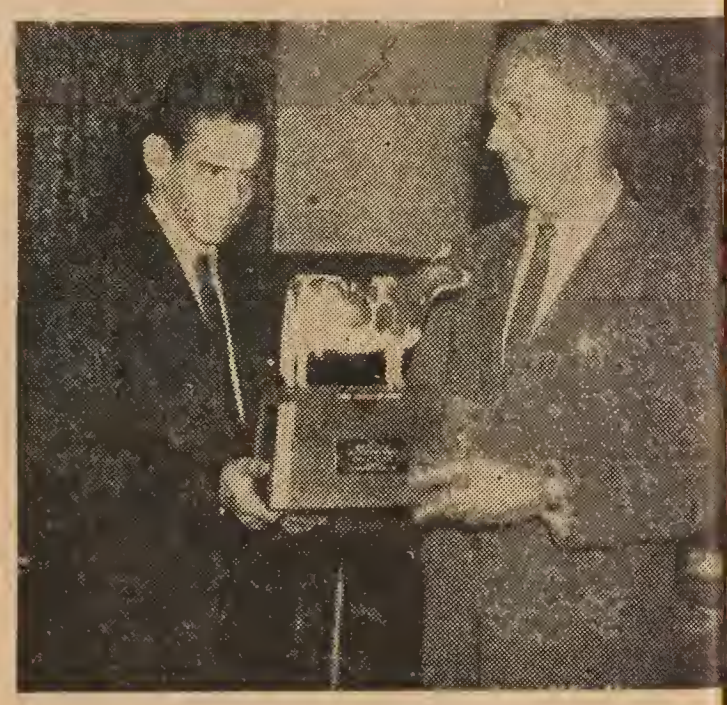
Top Sires—The registered Guernsey bull Wandamere Predictor has been named a Gold Star Guernsey Sire by the American Guernsey Cattle Club. He is owned by Henry I. Christal, Yorktown Heights, New York.

Bulls recently named Summarized Sires by the same organization include Woodacres Leader's Trumpeter, owned by New York Artificial Breeders' Cooperative at Ithaca, and LushAcres Hermes Piper, owned by Willard Peck and Son of Schuylerville, New York.

Resummarized Sires are Wheeler Acres Pharaoh, owned by New England Selective Breeding Association, Inc., Woodbridge, Connecticut, and McDonald Farms Le Pretor, owned by H. H. McConnell, Honey Brook, Pennsylvania.

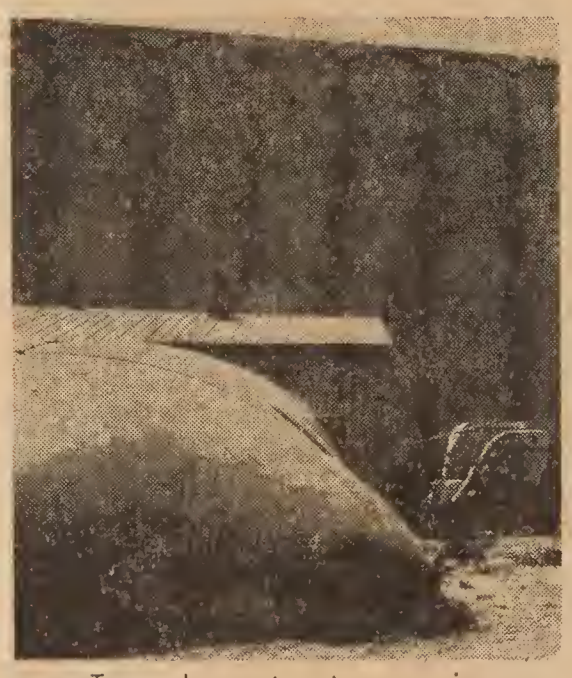
Top Swiss — The National Brown Swiss Cattle Breeders' Association has honored some top cows, including Active Acres Bonnie, owned by Active Acres Farm, Titusville, New Jersey, and Lee's Hill Anjoy, owned by Lee's Hill Farm, New Vernon, New Jersey.

Another animal honored by the Association is Sunset View Marguerite, from C/B Farm, Litchfield, Connecticut.



Douglas DeHart of Cortland, New York, was recently named outstanding junior achievement winner by the State Ayrshire Federation. Robert Blatchley, 4-H agent in Cortland County, does the honors.

It's New



Two places to store grain.

In The Bag — A new grain storage system said to make possible sharply reduced investment in storage facilities is being tested. The method uses huge plastic sausages for flat storage and stores grain under partial vacuum.

The method was developed by the DK Manufacturing Company, Batavia, Illinois. It employs a pneumatic grain handling machine which blows the grain into Koroseal vinyl storage containers.

The vacuum, by lowering the oxygen level, also reduces insects, molds, and other destructive forces. The bags can be stored underground.

"Blast Chilling" — This is a new method of quickly dropping temperatures of trucks or railroad cars by discharging carbon dioxide liquid inside the carrier. Principal features of "blast chilling" are the elimination of long after-loading pull-down periods to desired temperature, flushing of moisture laden warm air, minimum product shrinkage, retention of "fresh-killed" bloom on meat and meat products, and inhibition of bacterial and spore growth.

More information may be obtained by writing to Pure Carbonic Company, 150 East 42nd St., New York 17, New York. Specify for ADPC 46A.

Coccidiosis Control —Basic research findings that explain the hatching mechanism of coccidial cysts may open the way for effective coccidiosis control in poultry and livestock, the U. S. Department of Agriculture reports. Coccidiosis affects all poultry and livestock, and is responsible for losses to owners of livestock and poultry estimated at $50 million annually.

Researchers have been able to induce hatching of coccidial cysts in the laboratory after treating them with enzyme and bile. This work indicates the possibility of control **within** the host by drugs that would interfere with hatching action, and of control **outside** the host by use of enzyme-like substances as sprays or other treatments to destroy the protective coverings of coccidial parasites in forage, feed, or water.

Quick Eggs — Now they are thinking of disposable "frying pans" complete with eggs inside. All you have to do is cook the eggs and throw the "pan" away. Available for either fried or scrambled eggs, disposable containers could be used for cooking without any pans to wash.

Disposable liners for frying eggs are just one of the many egg products which may go on the market soon. Some other new ones include frozen eggnog cubes, egg whites in an aerosol can, eggs in cereal, an egg sandwich spread, egg candy bars and colored Easter eggs.

BUY BETTER BEEF BULLS

(Continued from Page 21)

Commercial breeders in the Northeast are producing good calves, but there is much room for improvement. Are 90 percent of your calves grading "good" or better? How many of your calves will make the "choice" grade? If a majority of your calves have been grading below "good" or if you have had very few calves make "choice," maybe it would be a good time to make a change in herd bulls.

Your present sire will probably bring about $300 for beef; it might not take much more to replace him with a good type young bull. What if it does take $200 extra or even double the value of the old bull? If you have only 20 cows and keep the bull for only three years and get 50 to 60 calves that will grade one notch higher than your past calf crops have been grading, you will be ahead by making the change.

Figures from New York feeder calf sales over the past several years show that every time you up-grade your calves one grade you increase their value about 2¢ per pound. In addition, the influence of the new bull will continue through his daughters that are kept in the herd.

Some cattlemen will say, "Yes, but I cannot be **sure** the new bull will make this improvement." Maybe so, but they will certainly not get anywhere by keeping a bull that they **know** is not giving desired results.

You might ask where one can find this so-called herd improver. The breed associations in many states have consignment sales in the spring. In New York State, these sales have been held at the livestock pavilion at Cornell University in Ithaca.

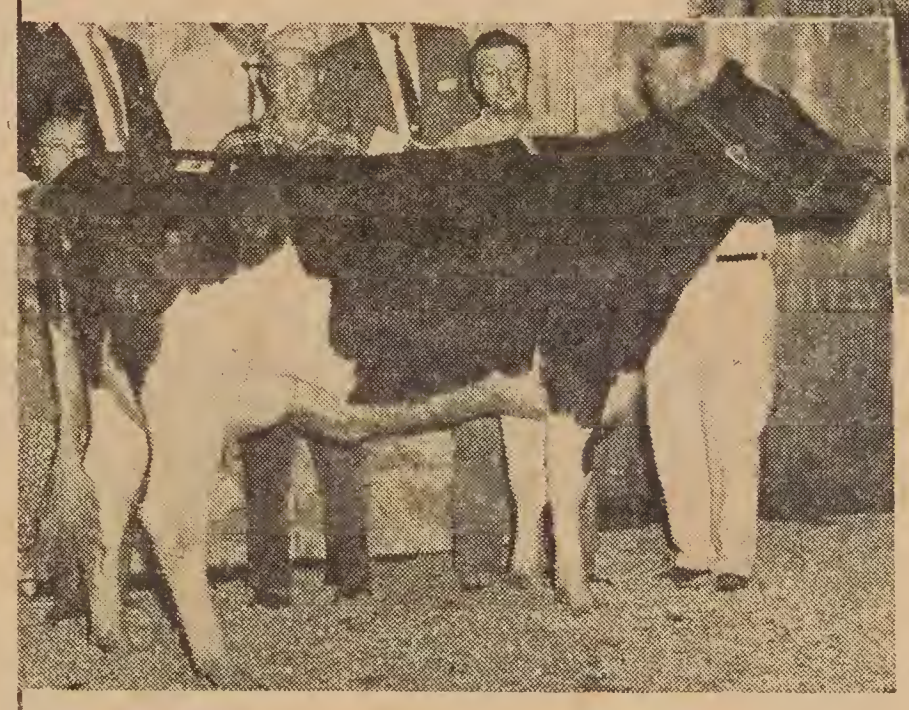
At this sale last spring, both Angus and Hereford sale people had their bulls type scored or graded In this way, the opinion of an experienced cattle judge or a committee of experienced cattlemen helps new breeders in making their selections.

TOP BUYER IN '60

One of the 8 cows Barton purchased at the '60 NYABC Morris Sale. Standing behind the cow (l to r) are: Marie and William Barton, consignor Bruce Harter of Jordanville, and buyer Barton.

AND





TOP BUYER AGAIN IN '61

◀This year Barton purchased another 8 cows to repeat as top buyer of the sale. Mr. & Mrs. Barton are shown here with one of their new animals. Barton is standing next to consignor Don Rhyde of Norwich.

ONE GOOD BUY LEADS TO ANOTHER

Bernard Barton of Morris has been top buyer at the annual NYABC Morris Sale for two years now. Here's why:

"According to my records, the eight cows I bought in '60 produced for me an average (actual production) of 14,520 pounds of milk in an average of 330 days — highest producer made 16,590 pounds. And these were all first calf records! NYABC-sired cows give me the production I must get to operate efficiently."

Prove to yourself that NYABC sired cows will pay in your herd. Next time you have a cow to breed, call your NYABC technician. You'll find one NYABC-sired cow will lead to another!

NYABC NEW YORK ARTIFICIAL BREEDERS' COOPERATIVE ITHACA, N.Y.

Your Headquarters for Great AB Proved Sires

'Round the Kitchen

By ALBERTA D. SHACKELTON

MAKING GOOD use of the foods listed as plentiful for January by the U. S. Department of Agriculture will help you be kind to the family food budget and provide some special eating for your family. Topping the list of plentiful foods are grapefruit and honey; others include apples, potatoes, pecans, frozen and canned red cherries, and broiler-fryers. Here are some suggestions for using these good and economical foods:

UPSIDE DOWN APPLE PECAN PIE

2 tablespoons soft butter
⅓ cup brown sugar, packed
30 pecan halves
Pastry for a 2-crust 9-inch pie (your own or pie crust mix)
6 cups sliced apples
¾ cup granulated sugar
2 tablespoons flour
1 teaspoon cinnamon
½ teaspoon nutmeg

Line a 9-inch pie pan with a 13-inch circle of aluminum foil, leaving 1 inch overhanging edge. Spread butter over bottom and sides of foil. Press pecan halves, round side down, in butter. Gently pat brown sugar into butter. Prepare pastry for 9-inch two crust pie. Divide dough into two parts. Roll one part into an 11-inch circle. Ease into pan. Combine rest of ingredients. Pile mixture over crust in pan. Cover with top crust, seal, and flute. Prick with fork to allow steam to escape. Brush lightly with milk. Bake 10 minutes in a hot oven (450°); decrease to quick moderate oven (375°) and bake 35 to 40 minutes longer, or until apples are tender. Remove from oven, let stand 5 minutes. Invert on serving plate. Serve warm.

Note: Turn up overhanging edge of foil to catch bubbling juice. Serves 7 to 8.

Broiled Grapefruit

Broiled grapefruit makes a good hurry-up dessert and is always nice as a first course, too. Choose grapefruit that are heavy for their size for the best juiciness. To prepare, cut grapefruit in halves crosswise, remove seeds and cut out core. With sharp knife, cut around each section of fruit to loosen flesh from membrane and skin, but do not cut around outer edge of fruit. Sprinkle each half with some granulated and brown sugar, dot with bits of butter, and broil 5 to 10 minutes or until golden color on top.

Note: Use honey or maple syrup in place of the sugars and sprinkle with any favorite spice, if desired. If you wish, you may lightly brown the prepared grapefruit halves (cut side down) in a frying pan in which you have placed a tablespoon or two of butter sprinkled with brown sugar.

For a breakfast dish for 6 using grapefruit and sausage, try this recipe. Prepare 6 grapefruit halves as above and sprinkle each half with brown sugar and nutmeg. Broil grapefruit 5 minutes three inches below the heat. While grapefruit is broiling, cut a half pound of brown 'n serve sausage links in half crosswise, then in half lengthwise. Place 6 slices "spoke" fashion on each grapefruit half. Broil 5 to 10 minutes longer and garnish with parsley, if desired.

POTATO FANS

6 to 8 medium potatoes
1 teaspoon salt
¼ teaspoon pepper
¼ cup butter

Wash, pare, and slice potatoes thinly, keeping each potato together when sliced. Arrange in 1½ quart buttered casserole, fanning slices to cover bottom, or fit into casserole bottom. Sprinkle with salt and pepper and add butter to the top. Cover and bake in a moderate oven (350°) for 45 to 50 minutes, basting with butter occasionally. Remove cover for last 10 minutes to brown top. Serves 6.

Freezing Poultry

While broiler-fryers and turkeys are plentiful, you may want to freeze some for future use. Frozen poultry is similar to unfrozen in flavor, texture, and color, and there is no better way to preserve it than by freezing. If you would like up-to-date directions, write to the Office of Information, U. S. Department of Agriculture, Washington 25, D. C. for a free single copy of "Home Freezing of Poultry" (HG-70).

Onions in the News

Most women would find it hard to cook without onions, but keeping them in good condition is often a problem. Some New York State growers have treated their crops with a sprout-inhibitor which makes onions come out of storage during the winter and spring in about the same condition as when pulled. For home storage of onions, choose a cool, dry, dark place. When you buy onions in airtight bags, remove from bags and place in loosely woven bags or other containers which permit a good circulation of air. If you store them in the refrigerator, be sure to place them in a tightly sealed container or airtight wrapper to prevent the odor spreading to other foods.

Many onion products are now available if you cannot or do not wish to store them fresh. The dry products include instant flakes, instant sliced, or minced onions, which are handy to use in recipes where there is some liquid. Onion powder or onion salt is good when a small amount of seasoning is needed. In the frozen food section of your supermarket you will find packages of chopped fresh onions, and on the shelves, canned small whole boiled onions and canned French fried onions.

A casserole dish currently popular is one in which alternate layers of cooked green beans and canned French fried onions are topped with cream of mushroom soup, canned mushrooms, sliced toasted nuts, and a sprinkle of grated cheese, and baked in a moderate oven (350°) about 20 to 30 minutes.



Use two of January's plentiful foods and serve this delicious looking Upside Down Apple Pecan Pie to your family or to guests. —Photo: General Mills

Lunch Box Specials

Do you, as the packer, or your lunch-box carriers ever get "lunch-box blues"? The owner of a freezer can stock it with sandwiches, made at her convenience, and save that daily problem of what to make. Sandwiches stored in a freezer can be held for several months. Sandwiches stored in the freezing compartment of the refrigerator should be used within the week.

Sandwich fillings which freeze satisfactorily include Cheddar, American and cream cheese, sliced poultry and meat, and such standbys as bologna and peanut butter. Egg sandwich fillings are not recommended for freezing, as the whites will become tough. Mayonnaise will separate, soak into the bread, and change the appearance of the meat or cheese in contact with it. Jelly, preserves, and honey also soak into the bread unless plenty of butter is spread to edge of each slice of bread. A frozen sandwich in a packed lunch will keep other foods crisp and cool for several hours and will be just about ready to eat at lunch time.

Something special in the lunch box will have appetite appeal. Fruit is essential for nutrition, flavor, and texture. Fresh fruits in season are always good, but try some of these occasionally: pitted cooked prunes filled with mixture of cream cheese and chopped peanuts; dates stuffed with blended peanut butter and orange marmalade; or quartered unpeeled apples frosted with cream cheese and dotted with chopped nuts.

Pickle kabobs will be a nice surprise, and properly wrapped, will not leak. To make, alternate cubes of pickles with cubes of cheese on a long toothpick and cover with transparent wrap. A salad or relish peps up a box lunch and furnishes additional nutrition. Put some of these in small paper cups and wrap well: cottage cheese relish made by adding chopped green peppers, celery, and onion to cottage cheese; 1-inch pieces of celery stuffed with cheese and nuts, or pimiento cheese and pickle relish; or cranberry relish. Various salads may also be added in some way.

If you have a dieter who carries lunch, make open-faced instead of closed sandwiches, and add plain cottage cheese, fruit, pickles, celery, carrot, and green pepper sticks and tomato slices in season.

If you would like more lunch box ideas, send for a free copy of "Something Special in the Lunch Box" to the Dow Chemical Company, Specialty Products Division, First and Water Streets, Bay City, Michigan.

THE NEW YEAR

By Inez George Gridley

Past slanting pastures new with snow
Hill and horizon blend.
There is no sharp dividing line
To show where mountains end.

So joins the old year with the new.
There's some of both within it.
I cannot hold it in my hands
And say, "This is the minute!"

For time is an elusive gift,
Compound of future, present, past,
And only those who use it up
Can make it last!

JANUARY GARDEN TIPS

By Nenetzin R. White

HOPE YOU had a happy Holiday Season! Now that it's over, why not make use of your Christmas tree the rest of the winter too? If you have any new plantings, or beds of shallow-rooted plants such as azaleas, rhododendrons or laurel, use the branches of the tree for a ground mulch. Another good place for the tree is near your bird feeder. The birds enjoy the shelter, and you can tie pieces of suet in the crotches. On Long Island thousands of Christmas trees are used as groins to build up shore lines, and prevent erosion by wind and waves.

Hungry Rabbits!

As we get more snow, rabbits get hungrier and hungrier. Don't think your plantings are immune, for when they run out of favorite foods, they will eat the bark off just about any plant, and of course, goodby plant! Their favorite plants are young fruit trees, dogwood, hawthorn, viburnums, euonymus, and many others, but they will eat just about anything that grows.

Your best protection is a repellent. Wrapping the trunks of young fruit trees, etc., is all right, but if the snow gets high, the rabbits will eat the branches. Repellents are sprayed on and are best used with a light wax substance such as "Wilt Pruf." Do this on a mild day and protect the most vulnerable plants. Then keep a sharp eye for additional damage. Two applications, one early and one after our winter thaw, should do for the winter.

Care of Bulbs

Summer flowering bulbs that are in storage should be checked a couple of times during the winter. Remember that we are trying to keep these in the same condition they were in when they went into storage. Dahlias, tuberous rooted begonias, cannas, and other fleshy rooted bulbs were stored plump and slightly damp. See that these remain the same way. You may have to aerate them if they are too moist, so they will not rot or mold, or add a little moisture to them if they are getting wrinkled and dry. I like peat moss or vermiculite as a storage media because they retain moisture, yet allow plenty of air to circulate.

Gladiolus corms when properly cured are quite dry, and belong in shallow boxes up off the cellar floor. The smallest corms occasionally need a light layer of slightly damp media such as peat or vermiculite. You should also lightly dust gladioli with a 5 percent DDT powder to discourage thrips and insect damage next summer. An all-purpose fungicide is beneficial to all stored bulbs. A good way to dust lightly is to put bulbs in a strong paper bag with dust and shake. Avoid breathing insecticides and fungicides.

Keep Your Poinsettia

Your Christmas Poinsettia can be kept and forced into bloom next Christmas. It's really fun to do this!

(Continued on Page 26)



Pages of fashions, accessories to knit, crochet, sew, weave, embroider, quilt in our 1962 Needlecraft Catalog.

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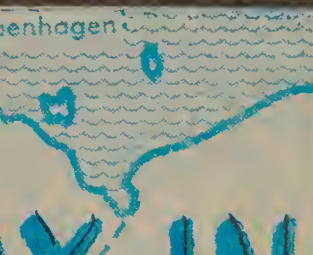
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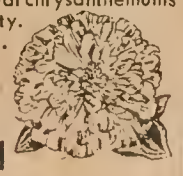
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Training For Careers

By W. M. FARNSWORTH*

AS MORE and more young people make college their goal, the two-year college has gained importance in the educational picture. The New York State Department of Labor estimates that industry and government will need to fill 107,000 technician positions before 1970; therefore the two-year technical college has become acutely aware of its responsibility toward the youth who will make up the important "technician group" of the future.

In New York State, young people are fortunate in having 25 publicly supported two-year colleges. Nineteen of these are locally sponsored institutions which are supervised by State University of New York. Six are Agricultural and Technical Institutes, which are operated by State University.

The institutes are authorized by the New York State Board of Regents to award the degree of Associate in Applied Science (A.A.S.). Like all other units of State University, they are accredited by the Middle States Association of Colleges and Secondary Schools.

There was a time when the high school senior either continued his education at a four-year college or went to work. The two-year college has made a third alternative available to young Americans, and the type of education offered by them has gained sharply in demand as employers have come to require more and more the services of the trained technician.

The Technician

Between the skilled worker and the engineer or professional man, the technician—who works with both groups—has become an indispensable link in industry, agriculture, and business. Technicians in industry and related fields translate plans into operations of many workers, perform technical processes, and serve as junior executives.

The specialization of operations in agriculture and business demands technicians trained to do high-level jobs. Technically-trained persons can grow into positions involving specialized knowledge, understanding of operations, use of personal judgment, and often supervision of the work of others.

The work of a technician, while it varies in specific operations from field to field, requires a broad knowledge of science and skills of the technology, as well as the ability to think and act in terms of broad social and economic situations. To train technicians for industry, agriculture, business, and the professions, each institute is equipped with modern instruments and machines and contains educational facilities that compare favorably with the best in the nation.

Faculty members are qualified for this type of education not only by degrees in engineering, business, art, agriculture and other fields, but by "know-how" gained in work experience in the field itself. Small classes permit personal contact between instructor and student, as well as a considerable amount of individual instruction.

Each student's background and abilities are analyzed to make his education at the Institute beneficial to his total development, not only as a technician, but also as a person.

Behind the programs of the various Institutes stand advisory committees composed of men and women from management, labor, business, education, and the general public, who keep curriculums geared to the demands of the job, and who assure the educational standing of the training offered.

Many Opportunities

The **business** division offers technical curriculums in accounting, management and marketing, hotel and resort management, and secretarial and administrative assisting. The **construction** division offers technical programs in building construction, civil technology, and construction business.

The **food administration** division offers training programs in institutional quantity foods, and in restaurant management. The **agricultural** division offers curriculums in dairy farming, general agriculture, animal technology, dairy laboratory and products manufacturing, agri-business, and farm power and equipment technology. Many of these and other technologies are offered by each of the other Agricultural and Technical Institutes.

If you are a high school student, take a look at your future and ask yourself the following questions:

Are you seeking a long-term career opportunity that combines satisfying work with a constant opportunity for growth and development?

Do you want the feeling of knowing that you are competent in your job, and that each day's experience, added to a rich fundamental education, brings you closer to mounting the next step of the ladder?

Do you want certain advantages of higher education, even though you may lack the time or money to embark upon four or more years of college?

Do you want education that will make you not only a key member of production, but also a well-rounded person, living an alert, rich life?

If these are the things you want, look into the possibilities of a career as a technician.

*Professor Farnsworth is chairman of the Agricultural Division of State University Agricultural and Technical Institute, Delhi, N. Y.

GARDEN TIPS

(Continued from Page 25)

Shortly after a Poinsettia finishes blossoming, it will go into a rest period. If it doesn't do this on its own, give it only half the normal amount of water. The plant foliage will start to yellow and will soon fall off. Then, place the plant in the cellar and water just a little every couple of weeks until late spring. A good trick with any dormant plant in the cellar is to lay it on its side. It won't dry out as much, and if you forget to water as frequently as you should, it will probably still make the grade.

After danger of freezing is over in the spring, cut the Poinsettia back to approximately six inches and sink pot into the garden. Feed rather heavily all summer, and pinch back as you would your mums, or cut back plant one-third in mid-July. Bring in before frost and treat as any house plant. If we have a lot of sun next December, you may have to shade your plant in order to get blossoms for Christmas. Good luck!



CAMP IN WINTER

By Edith Shaw Butler

Winter has come, there is snow on the bough;
The camp in the pines is deserted now.
Wind rattles the shutters and bangs at the door,
The shadows are blue on the forest floor.

Only the squirrels and chickadees
Go about their business among the trees,
While the camp in the pines, with secrets to keep,
Has snow on its roof and is fast asleep.

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You can now get six new "How-to" sewing books from your local Singer Sewing Center or at various chain and department stores.

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Cinnamon Coffeecake



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CINNAMON COFFEECAKE

½ cup milk
¼ cup sugar
½ teaspoon salt
3 tablespoons shortening
1 package Fleischmann's Active Dry Yeast
½ cup very warm water
1 egg, beaten
3½ cups sifted flour
¼ cup Fleischmann's Margarine, melted
⅔ cup sugar
1 tablespoon cinnamon

Scald milk, add ¼ cup sugar, salt and shortening; cool to lukewarm. Dissolve yeast in very warm water. Add milk mixture and beaten eggs. Gradually beat in enough flour to make soft dough. Knead lightly, about 10 min. Place in greased bowl. Brush top with soft shortening. Cover; let rise in warm place, free from draft, until double in bulk, about 1 hour. When light, punch down; divide into 2 portions. Roll each into 8 x 5-inch rectangle; cut into strips 1 x 8 inches. Shape each strip by hand to form rope. Pinch ends together to form one long rope. Coil into well-greased 8- or 9-inch layer cake pan, turning to twist, starting at outside and coiling toward center of pan. Brush with melted margarine. Sprinkle with sugar-cinnamon mix. Cover; let rise in warm place until doubled, about 1 hr. Bake at 375° F. (mod.) for 25 min. Makes 2.



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INDIAN RIVER ORANGES, grapefruit or mixed. $7.45 bushel, $4.95 half bushel. Express charges paid by us. Shew Groves, Route 4, Box 65, Fort Pierce, Florida.

PEPPER, SASSAFRAS, Cinnamon, sage, caraway seed, paprika, poppyseed, cloves, ginger, chilimix, creamtartar, garlic $1.25 pound. Peerless, 538AA. Centralpark, Chicago, 24.

HAY & OATS

FIRST AND SECOND cutting alfalfa, mixed trefoil and other grades of choice dairy hay delivered by truckload. Weights and quality guaranteed. Bates Russell, East Durham, N. Y. Phone Melrose 4-2591 before 8 AM or after 5 PM.

HAY—STRAW WANTED. Finest quality clover—timothy, Alfalfa, Bright wheat straw. S. A. Rauch, New Hope, Penna., VO 2-2081.

FIRST-SECOND CUTTING alfalfa. Timothy. Wheat straw, Mulch hay. Oats. Ear corn. Phone HO-9-2885. James Kelly, 137 E. Seneca Tpke., Syracuse, N. Y.

CARLOT OR TRUCK hay, alfalfa pellets, grain. Schwab Bros. Mills, Inc., New Bavaria, Ohio. Phone 3156.

SIGNS

NO HUNTING SIGNS any material, lowest prices. Free sample—catalog: Signs, 54 Hamilton, Auburn, New York, Dept. G.

DURABLE PLASTIC Posted Land Signs. Free samples. Minuteman, Stanfordville, New York.

FARMS WANTED

RESPONSIBLE MAN desires workable arrangement with owner of good 50 cow or better farm leading to ownership. Especially interested in older farmer who has built a good herd and wishes only partial retirement. Lifetime experience with cattle, machinery and management. Some capital. Six children. Please write major details of farm to Richard Vining, RD#2, Windsor, N. Y.

FARMS FOR SALE

123 ACRE DAIRY FARM, excellent buildings. $18,000. 34 artificially sired Holsteins and good line of machinery may be bought if desired. Victor Bryan, Delhi, N. Y.

WASHINGTON COUNTY, New York, 131 acre farm, excellent 36 stanchion barn, bulk tank, good silo, 30 milkers plus young stock, 2 tractors, baler, tedder, conditioner and other machinery. Nine-room house, bath, drilled well. This is an attractive, well-kept, one-man farm. $45,000. Pettys Agency, Greenwich, New York.

320-ACRE BEEF, DAIRY or sheep farm; high elevation, glorious view of White Mts.; tractor-worked fields brooks water pasture, estimated 1000 cords hardwood, 100,000 ft. saw timber, sugar maple grove, evaporator house and eqpt.: Dutch Colonial, 15 rooms, modern bath, furnace, electric and Dutch oven, barn 38x42, cow stable 36x50, 40 stanchions, drinking cups, woodshed; milk collected; convenient to towns; sacrifice-price $15,000. Strout Realty, Contoocook, N. H.

346 ACRES—260 CROP LAND, 70 woods, 6 miles north of Waterloo. Mostly land capability Class 2. Modern house. Emil Kahabka, owner, Route 3, Waterloo, New York.

253 ACRES—GOOD SOIL, lies well; springs, streams, $12,000. Simpkins, Indian Valley, Va.

REAL ESTATE

FLORIDA—FOR SALE: ¼ ACRE Homesite in Florida—private lake, free country club privileges, white sandy beaches right at property. Fishing pier, club house, dock site, lovely homes, hard-paved roads under construction, electricity, phones, tested pure water — all available. Certified high, dry land only 2½ miles from healthful bubbling waters of Rainbow Springs. Only $10.00 monthly. Total cost $795, no hidden extras. Free photos, booklet. Write to Rainbow Lakes Estates, Dept. B-37 817 Silver Springs Blvd., Ocala, Florida.

AGENTS WANTED

EVERY FARMER a prospect for our No Hunting signs. Good profit, excellent sideline. Write Signs, 54 Hamilton, Auburn, N. Y.

MAKE BIG MONEY taking orders Campbell's Gro-Green Liquid and 100% Soluble Crystal Fertilizer Concentrates. Saves time, money, labor Feeds foliage, soil. Field proven over 10 years. Increases protein, mineral content grains, forage. Free sample. Selling outfit, Credit given. Ideal for corn and feed men. Campbell Co. (Est. 1928), Rochelle 69, Illinois.

SALESMAN WANTED — Sell Mineral Supplements. Udder Ointment and other agricultural chemicals to farmers or dealers. Old established line, liberal commissions. W. D. Carpenter Co., Inc. 111 Irving Ave., Syracuse, New York.

RUN A SPARE-TIME Greeting Card and Gift Shop at home. Show friends samples of our wonderful new 1962 All Occasion Greeting Cards and Gifts. Take their orders and earn up to 100% profit. No experience necessary. Costs nothing to try. Write today for samples on approval. Regal Greetings, Dept. 14, Ferndale, Michigan.

SENSATIONAL NEW longer-burning light bulb. Amazing Free Replacement Guarantee—never again buy light bulbs. No competition. Multi-million dollar market yours alone. Make small fortune even spare time. Incredibly quick sales. Free sales kit. Merlite (Bulb Div.), 114 E. 32nd. Dept. C-74N, New York 16.

SEEKING NEW PRODUCTS? Get my outfit 47 money-making specialties. Latest conveniences for home, car. Send no money. Just your name. Kristee 150, Akron, Ohio.

FISHING

FARM-POND-FISH-Traps. Traps for birds; animals, Shawnee, 3934E Buena Vista, Dallas 4, Texas.

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PLASTIC: TWO CLEAR 9x12'—$1.50. Triple weight tarpaulin 9x12' $2.00. Black $2.50. 9x20'—$3.25. Black $4.00. Postpaid. Catalog. Adval, Box 439E Hackensack, N. J.

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PHOTO FINISHING — Send for pricelist and mailers. Postal Film Service, Dept. A., P.O. Box 247, Buffalo 21, N. Y.

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GROW GIANT-SIZE Apples, peaches, pears on sensational Stark Dwarf trees. As many as 9 trees in space 20 ft square. Bushels of delicious fruit for table, freezing, canning, profit. Free catalog of Stark-Burbank Fruit Trees, Dwarf Fruit Trees, shrubs, shade trees, vines, roses, etc. Stark Bros., Dept. 30412, Louisiana, Missouri.

EVERGREEN SEEDLINGS and transplants in leading varieties for Christmas tree production. Assorted ornamentals Free price list and planting guide Flickingers' Nursery, Sagamore, Pa.

COLORADO BLUE SPRUCE, 25 for $3.75 postpaid. 10-14 inch. Heavy root systems. Free catalog and Planting Guide. Sunerest Nurseries, Box 5-J. Homer City, Pa.

EVERGREEN PLANTING STOCK for reforesting, Christmas trees, windbreaks, ornamentals. Growers, quality stock, reasonable prices. Free catalog and Planting Guide. Sunerest Nurseries, Box 5-J. Homer City, Pa.

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FREE VEGETABLE PLANT Catalog. Tomato, pepper, onion, cabbage, lettuce, broccoli, cauliflower, and eggplant. Wide selection of leading hybrid and standard varieties. Fifty-six years experience supplying home and commercial gardeners. Write today. Piedmont Plant Co., Dept. 2021. Albany, Georgia.

STRAWBERRY AND RASPBERRY plants. All varieties. Free catalog. Special discounts on large orders. Free plants. Sprout Plant Farm, Waverly, New York.

HELP WANTED

LARGE DAIRY FARM needs experienced men for milking cows Excellent housing and boarding house on premises. Steady work top wages and bonus for right men. Call Mr. Bernon, Garelick Bros. Farms, Inc., Franklin, Mass. 419 days or Woonsocket, R. I. POplar 9-7996 after 5:00 P.M.

WOMAN WANTED to take care of children while parents work. Live in. Contact Mrs. Dean Hart, Sackett Rd., Bergen, N. Y. Bergen 32F11.

GARDEN SUPPLIES

USED SHADE CLOTH protects berries from birds, holds soil new lawns, 35¢ lb. better, 20¢ lb. cheaper. Postpaid. Hibbards, N. Hadley Mass.

STRAWBERRIES

FREE NEW STRAWBERRY Catalog. Tells how easy it is to grow bigger, more delicious berries in your garden, or in larger plantings for big profits. Rayner's catalog can be very helpful. It gives complete planting and growing instructions. Lists 26 leading varieties of registered virus-free strawberries. Fully describes, illustrates varieties best suited for your area Rayner's plants are vigorous growers producing extra large berries and bumper crops. All plants guaranteed and certified, Federal and State inspected. Also lists leading varieties of blueberries, blackberries, grapes, asparagus, fruit, nut, shade trees, evergreen seedlings, ornamentals. Send for your copy today! Rayner Brothers, Inc., Salisbury 18, Maryland.

STRAWBERRY PLANTS: Certified, fresh dug. Catskill, Empire, Sparkle, Robinson, Fairfax, Premier, Pocohontas, Midway $3.25 per hundred postpaid. Everbearing Superfection $4.75 per hundred postpaid Write for quantity prices. Braman Bros., Penfield, New York.

BUSINESS OPPORTUNITIES

JOIN A RAPIDLY growing group of New York State families who are raising Cabana Marrone Nutria, a gentle fur-bearing animal. Under the new Co-op program, the increasing demand for pelts has made it possible to give ranchers many new benefits, including profit sharing. Many ranchers will get their investment back even before reaching the pelting stage. Get the facts now on how you, too, can earn a substantial family income. New ranchers are starting every week. For a limited time we are offering free a bonus pair to each new rancher. You are completely backed as to production, training and market. To qualify, you must make a moderate investment, have land, and furnish references Write to Cabana Nutria Breeders Association, R. D. #1, Cayuga, N. Y.

NEED CASH? EARN it raising fishworms! Write: Oakhaven-6, Cedar Hill, Texas.

IF YOU HAVE a good well, spring, pond or stream on your property, you have the most essential part of becoming a successful Cabana Nutria rancher. Over 150 families in New York State have started this business for profit. Under the new cooperative program, ranchers may have an income from *pelts produced *sale of own breeding stock, *sale of by-products in the future, *a share in the profits of C.N.B.A., *commissions on all sales by them. They will have services of C.N.B.A. in marketing pelts and equal ownership of all the Co-op's assets. Although membership will be limited, we now need 1,000 new ranchers in New England area. Write to Ken R. Smith, R.D. #1, Cayuga, New York, and get the facts on how you, too, can have an income with the easiest and most profitable of all fur animals to raise, 'Cabana Marrone Nutria.

DAIRY QUEEN BUSINESS Ft. Lauderdale, Florida Away from snow and ice. A. Burkinshaw, Pine Bush, N. Y.

(Continued on Opposite Page)

(Continued from Opposite Page)

NEW & USED EQUIPMENT

AUTOMATION SPECIALISTS serving the better dairymen of the Northeast for over 15 years. milking systems. bulk milk tanks and side opening coolers. barn cleaners. silo unloaders. silos. metal buildings. Livestock taken in trade and also livestock for sale. Nold Farm Supply. Rome. New York.

WANTED — ALLIS-CHALMERS Roto Balers. New or used. Give price and condition. Brice Creesy. Andover. Ohio. Phone 3319.

NEW MASSEY-FERGUSON and Cockshutt equipment. Also largest selection of good used tractors and machinery in Northern New York State. Tractors from $65.00 up. Write or phone. Wanted AC balers. will buy or trade. Will deliver. Phone Lowville 85; Ingersoll's Farm Supply. Martinsburg. New York.

FOR SALE: Chevrolet Tandem truck with insulated body. Excellent condition. Thompson Farms. Clymer. N. Y. Phone EL-5-8822.

FOR SALE: Bean potato grader. motor. pick-out table and elevator attached. Thompson Farms. Clymer. N. Y. Phone EL-5-8822.

WANTED: DEALERS to handle line of bunk feeders or self-unloading wagon boxes. platform and grain boxes. wagons. spreaders. etc. Address inquiries to Box 511-OC. American Agriculturist. Ithaca. N. Y.

GOVERNMENT SURPLUS

BOLT AND NUT assortment N.F. and N.C. thread—Hexhead assorted sizes ¼ to ⅞ to 6 inches long $15.00 per 100 pounds. FOB. quality guaranteed. Check with order. Rolling Equipment Co.. 1125 Military Rd.. Kenmore 17. N.Y.

NAILS — GALVANIZED ¼ x 2½ with ½ heavy head used for nailing corrugated steel. $10.00 per 100 pounds. Check with order. Rolling Equipmenet Co.. 1125 Military Rd.. Kenmore 17. New York.

TENTS. GOVERNMENT SURPLUS. 5 man hexagonal. pyramidal. Cost $140. Our price $39.50. $275 paint spray unit. $44.50. Free folder. Imsco. 1829 S. State. Chicago. Ill.

BELTS—V TYPE Assortment from 32 inches to 60 inches inside diameter and ½ and ⅝ wide inside. 12 for $6.00. postpaid check with order. Rolling Equipment Co.. 1125 Military Rd.. Kenmore 17. N. Y.

JEEPS $278. AIRPLANES $159. boats $7.88. generators $2.68. typewriters $8.79 are typical government surplus sale prices. Buy 10,001 items wholesale. direct. Full details; 627 locations and procedure only $1.00. Surplus. Box 789-C14. York. Penna.

10.000 WATT GENERATORS completely rebuilt. guaranteed. 110/220 volts A.C. 1 phase for any farm or house. Will run complete farm. Cost Government $2300 —$575 special price complete w/meters and engine water cooled. Will send picture upon request. Montague Supply. RD#1. Port Jervis. N. Y. Call collect East Milford. N. J. 6815 or 6944.

GOVERNMENT BARGAINS — jeeps. trucks. clothing. blankets. Thousands of other articles. Some free Enclose dime and write. Clyde Lee. Mountain View-AA. Oklahoma.

ARMY SURPLUS FOOTWEAR. heavy outerwear. equipment. etc. Tremendous catalog free. Princeton 300EJ Northern Blvd.. Greatneck. N. Y.

TARPAULINS

CANVAS TARPAULINS—Direct from factory —nylon reinforced eyelets. medium weight. Cut size—7x9 feet. $5.67; 8x12 feet. $8.64; 12x14 feet. $15.12. Write for complete list of sizes and samples. Our 67th year. Eureka Tent & Awning Co. Inc. Binghamton New York.

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MAKE BIG MONEY Writing:—Easy to learn home study course shows you how to write and sell stories. mysteries. articles. TV-Radio scripts. etc. Send for free book. lesson writers magazine and "interest" quiz. Palmer Institute of Authorship. Dept. 11C1891. 810 Dodsworth. Covina California.

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AUTOMATIC FEEDING saves time and hard work. Feed mechanically with the Silo-Matic Unloader. "Scru-Feed'r" Bunk Conveyor and Pro-Met'r concentrate dispenser. Proven equipment guaranteed. Free pictures and plans. Dealer inquiries invited. Write Van Dusen & Company. Inc.. Dept. A. Wayzata. Minn.

SILOS—FACTORY CREOSOTE Treated Wood. Maximum insulation against frozen ensilage and absolute acid resistance. Dependable lock-doweled wind-resistant construction. Immediate delivery. Box BS-12. Unadilla Silo Co.. Unadilla. New York.

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105 DISSIMILAR BRITISH Colony stamps. 10c. Approvals Crown Stamp Company. Virgil 615. Ontario.

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107 DISTINCT BRITISH Colonial stamps. 10c. Approval. Linstamp. St. Catharines 415. Ont.

103 DIVERSIFIED BRITISH Empire stamps. 10c Approvals. Niagara Stamps. St. Catharines 515. Ontario.

307 WORLDWIDE DIFFERENT stamps only 25c. Approvals. Niagara Stamps. St. Catharines 215. Ontario.

OLD COINS WANTED. Illustrated catalog 25c. Hutchinson's. Box 6256. Philadelphia. Penna.

WANTED: OLD STAMPS. coins. letters. Appraised free. Will buy at appraisal value. Max Honig. Castleton. N. Y

SPORTING EQUIPMENT

SNOWSHOES—Finest quality. large selection $15.00 to $25.00. Satisfaction guaranteed. Circular free. Anderson & Sons. Cumberland Center. Maine.

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PROPHET ELIJAH COMING. preparing way for Christ. Wonderful Bible prophecies. Convincing Bible evidence. Free book. A. Megiddo Mission. Rochester 19. New York.

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BEAUTIFUL MEMORIES that will remain in your heart forever. Join our 1962 summer tour to the West. A Grand Circle trip that covers 9000 miles. 18 states. 5 Canadian Provinces plus a visit to Old Mexico. By Charter Bus. 19 days. Leave June 23. July 16 and August 11. 1962. See Grand Canyon Boulder Dam. Las Vegas. California. World's Fair at Seattle. British Columbia and Lake Louise. A simply wonderful trip. Only $321.00 plus tax. Send for free leaflets. Start anticipating. Shanly International Corporation. 528A Blue Cross Bldg.. Buffalo 2. N. Y.

MUSIC

LEARN THE GUITAR at home Chords. notes. rock 'n roll. western style. $3.00 complete. postpaid. guaranteed. Reilly's. 55 Ely Street. Bingham on 3. New York.

WOMEN'S INTEREST

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George. 3605 South 15th. Minneapolis 7. Minnesota.

QUILT PIECES — Beautiful colors! 1¼ lbs.. $1.00. 3¼ lbs. $2.00. Guaranteed! Ward Gould. 92-A North. Medfield. Massachusetts.

REGULAR YARD GOODS. remnants. rug material. coatings. suitings and skirt material. Blankets. linings and knitting yarns. Samples sent upon request. Mail orders filled promptly. Ye Olde Wool Shoppe. Kezar Sales Corporation. Route 25. Kezar Falls. Maine. Tel. Cornish 723.

RUG WOOLS—BRAIDING and hooking. Preshrunk 100% wool selvedges. We are in the garment center. Send 15¢ for samples. Also try our beautiful braiding mixture 100% wool. 45¢ pound. Minimum order $4.50. Postage extra Sherman Woolens 552 5th Avenue. New York 18. New York.

QUILT PIECES—Colorful velvets. 1¾ pounds $2.00; colorfast cotton prints. 1¾ pounds $1.00. 3¾ pounds $2.00—postpaid. guaranteed. Nucleus. Dept. AA. 24 Laurel Hill Terrace. New York 33. N. Y.

HOUSEWIVES. "Buy at Discount." Make huge savings on appliances. silverware. watches. housewares. toys. personal needs. etc.. send for free big 4-color catalog. The Benton Co.. Liberty. N. Y

WINTER FOOT COMFORT. sheepskin. double deerskin casuals. moccasins. slippers. boots. 30 styles. Free catalog. The Cottage Crafts Shop. Rutland Vermont.

QUILT PIECES: 5 pounds—$2.00. Colorfast. cotton prints; guaranteed cotton dress goods: eleven yard bolt—$5.00. postpald. Elizabeth Thompson. 82 Walnut. Brookline 46. Mass.

STAMPED LINENS FOR embroidery or painting yarns and kits for knitting. crocheting. weaving. rug making supplies. Send for free catalog. Merribee Corp.. Dept. 392. 16 West 19th St.. New York 11. N. Y. or 2729 West 7th St.. Fort Worth 7. Texas.

YOUR CHURCH OR Group can raise $50.00 and more. easy and fast. Have 10 members each sell only twenty 50¢ packages my lovely luxurious Prayer Grace Table Napkins. Keep $50 for your treasury. No money needed. Write Anna Elizabeth Wade. Dept. 9FA1. Lynchburg. Va

MULTIPLE SKIRT (or slacks) hanger true-grip. Holds one to half dozen skirts. Save closet space. additional hangers. Direct from manufacturer. $1.00 ea. R. C. Garay. POB137 Rockaway Park 94. N. Y.

QUILT PIECES — 7 pounds. $2.00; beautiful cotton prints — guaranteed. Bromberg. Dept. AA. 1558 Minford Place New York 60. New York.

RUG BRAIDERS: Complete supplies available; precut and prerolled wool—36 standard colors. Braiders—needles—lacing and stand. Send 25¢ for color chart. Carten Redi-Braid. P.O. Box 61. Devon. Conn. Dept. A.

MISCELLANEOUS

AFRAID OF LIGHTNING? Don't be—call us for free inspection. Survey and exact cost on complete lightning rod service. Morse-Collins Inc.. 148 Coddington Road. Ithaca. N. Y. Phone 4-0445.

STOP ITCHING Promotes healing of piles. psoriasis. eczema. "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed. 3 oz. $1.00 postpaid. Roberts Pharmacy. Lisbon Falls. Maine.

"BACKWOODS JOURNAL" — Old Forge 16. N. Y. $2.00 year. sample 35¢.

PARTS FOR STOVES. furnaces; coal. oil. gas. electric. Empire Stove Co.. 793 Broadway. Albany. New York.

RUBBER STAMPS: 3 lines $1.00. Shipping. address and product labels Printing. Mailbox nameplates. Colored stationery. Free ballpoint refills with orders. Catalog. Champlain Industries. Hinesburg. Vermont.

AMAZING WHOLESALE Catalog! 100,000 products—save 70% — sporting goods. housewares. everything! Econ-O-Mart. Whippany 20. New Jersey.

"TOBACCO": SMOKING (ready-mixed) or chewing (sweet). 5 pounds $3.00 postpaid. Fred Stoker. Dresden. Tennessee.

YOUR CHURCH OR Group can raise $50.00 or more. easy and fast. Have 10 members each sell only ten $1 bottles my famous Double Strength Imt Vanilla Flavoring. Keep $50 for your treasury. No money needed. Write Anna Elizabeth Wade. Dept. 9FA2. Lynchburg. Va.

QUICK-JOHN FOR septic troubles. outdoor toilets. New. exclusive enzyme-bacterial formula digests solids. grease. paper etc. Ends backups. odors. pumping. digging. Harmless to plumbing. Six treatments in handy flush packets. $2.50 postpaid; 12. $1.50 Money back guarantee! Ryter Co.. Madelia 20. Minn.

SHEEP SUGGESTIONS

RALPH GRIMSHAW, Ohio State animal husbandry specialist, lists the following suggestions for sheep raisers:

1. Begin with large-type breeding ewes that will breed early, and produce twin lambs.
2. Turn rams with ewes early in August for January lambs. Select large-type mutton rams which have ability to breed early and that will enable lambs to make ¾ lb. or more gain per day.
3. Paint ram's brisket to indicate fertility. Change colors every 17 days.
4. Start feeding ewes 6 weeks before lambing.
5. Provide lambing pens to save lambs.
6. Dock and castrate all lambs at 7 to 10 days of age.
7. Start creep-feeding lambs at 10 days of age.
8. Wean lambs between 90 and 120 days of age and turn ewes to permanent type pastures.
9. Top out lambs. Market lambs and wool on a graded basis.
10. Drench ewe flocks at least four times per year. Drench lambs monthly, if they go to pasture with ewes. Dip all ewes and lambs yearly.

Coming Meetings

January 24-25—12th Annual Dairy Seminar, University of Massachusetts, Amherst.

February 4-7, 1962 — National Dairy Council Annual Meeting. Philadelphia, Pa.

Rip Van Winkle Couldn't Sleep with Nagging Backache

Now! You can get the fast relief you need from nagging backache, headache and muscular aches and pains that often cause restless nights and miserable tired-out feelings. When these discomforts come on with over-exertion or stress and strain—you want relief—want it fast! Another disturbance may be mild bladder irritation following wrong food and drink—often setting up a restless uncomfortable feeling.

For quick relief get Doan's Pills. They work fast in 3 separate ways: 1. by speedy pain-relieving action to ease torment of nagging backache, headaches, muscular aches and pains. 2. by their soothing effect on bladder irritation. 3. by their mild diuretic action tending to increase output of the 15 miles of kidney tubes.

Find out how quickly this 3-way medicine goes to work. Enjoy a good night's sleep and the same happy relief millions have for over 60 years. Ask for new, large size and save money. Get Doan's Pills today!

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STRAWBERRY PLANTS
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ELMORE'S
That's GOOD Feed





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INSTANT RELIEF FROM AGONY OF ITCHING!
ADAMS' TARLEINE®

due to Eczema, Itching Piles, Psoriasis, Athletes Foot, Detergent Hands, Chafing, Scaly and Red Raw Itching Skin.

Relief can be yours by using ADAMS TARLEINE, our 100 year old satisfactory-proven ointment which relieves through healing.

Money cheerfully refunded if not satisfied. Send to Chas. L. Adams Medicine Co., Dept. A, 324 W. Pleasant Ave., P. O. Box 69, Colvin Sta., Syracuse 5, N. Y. Send $1.00.

We are proud of our unsolicited testimonials. Not Sold in Drug Stores.

J. S., San Bernardino, Calif., "I was troubled with a bad leg sore for many years, and at times was unable to walk. After trying many prescriptions and medicines, a friend recommended TARLEINE, which healed the leg in a very short time, and I have never been bothered since."

W. J. P., Indianapolis, "I have used TARLEINE and found that it is everything you claim it to be. It has cured my piles and I am so thankful to you for putting out such a remedy."

Good Chicks from the Best Strains . . .
For brown eggs: Harco Sex Links or our R.I. Reds. For white eggs: Arbor Acres Queens or Darby Strain Cross. For eggs and meat: Silver Hallcross or Golden Hallcross. For meat: Vantress or Peterson Cross. Fast, guaranteed-live delivery. You must be satisfied. Write for price list: 214 Cook Hill Road.
Hall Bros. Hatchery, Inc., Wallingford, Conn.

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in *suppository* or *ointment form* under the name *Preparation H®*. At all drug counters.



Ed Eastman's Page

Blow Your Own Horn!

BECAUSE the number of farms and farmers are rapidly declining, too many people believe that agriculture is no longer important in the United States.

If you think that farming is on the decline, take a look at some of the following real facts:

1. With fewer farmers than ever, the American farmer is producing far more food and fiber than ever before. We are feeding our rapidly increasing population and millions of foreigners.

2. We have an investment of $200 billion in agriculture, more than three-quarters of the stock of all the corporations on the New York Stock Exchange.

3. Consumers spend $100 billion a year or about one-third of their annual income for food and clothing produced by American farmers.

4. Farmers themselves are tremendous consumers not only of home products but of the vast amount of equipment, feed, seeds, and fertilizers necessary to carry on their business.

5. Farming with its allied industries employs more people than any other industry except retail trade.

6. Total income of farmers is greater than that of any other industry, except wholesale, retail trade and contract construction. For example, income originating in agriculture is about twice as great as that in the whole automobile industry.

7. Consumers complain about the cost of food but Secretary Freeman of the United States Department of Agriculture said that in terms of how much labor it takes to buy it, food in the United States is lower than anywhere else in the world, only 20% of our take home pay.

8. Russians brag about their achievements but our farmers produce 80% more on one-third fewer acres with one-eighth the number of farmers compared to Russians. Secretary Freeman says 6 million persons on United States farms produce 60% more than 48 million do in Russian agriculture.

With all of this splendid achievement the American farmer is under paid. In the past ten years, we have increased production 29% while our net income is 26% lower. What is the answer to this problem? Do as the Russians do! Blow our own horn more! Let farmers and their organizations advertise and talk up the facts at every opportunity. Let's stand up for ourselves!

TAX TIME ALL THE TIME

This is tax time—in fact it has gotten so that every day, week and month in the year is TAX TIME. The result is that if you feel like I do, you are worried and sort of half mad at the government every time you think of TAXES. It's a sad day for America when we come to hate government for it means a lessening of our patriotism and our willing support.

But why shouldn't we feel that way? LOCAL TAXES in New York State more than **doubled** in the 1950's. NEW YORK STATE TAXES multiplied **three times** and FEDERAL TAXES **doubled** in the ten years.

Those figures are frightening and they are continuing to jump faster than ever. Most of us are working months every year just to pay taxes before we have anything left for our own expenses.

United States Senator Byrd from Virginia, who has probably done more than any other member of Congress to keep taxes down and to alert the people of the danger from taxes said recently:



"I went recently to Denmark. I asked them to show their books and the first item on the books of Denmark was one hundred million dollars to pay off the debt of Denmark. Denmark got that money from the United States and it was **added** to **our** debt."

That was a very ridiculous thing. This paper could be filled with other examples showing the extravagant use of tax money from our localities straight through to the Federal government. A real danger from Communism is from inflation and taxes.

When we are bled white, then the Communists can take over without any war whatever!

CREDIT IS A FARM TOOL

When little capital was needed to start farming, credit was not much of a problem. But today, with the thousands of dollars needed to operate a modern farm, credit is just as necessary as a tractor or any other tool, and a farmer who is unwilling, or doesn't know how to use credit, is out of luck.

Fortunately, there are several sources of good farm credit. It was not always true but today most bankers, realizing the importance of agriculture, are very glad to advise with farmers on their farm credit problems and to cooperate in loaning money with which to carry on the farm business.

The Cooperative National Farm Loan and the Production Credit Associations, now mostly owned and operated by farmers themselves, are excellent sources of credit. As you know, the National Farm Loan Association loans money on long term mortgages, and you can get money from the Production Credit Corporation for your seasonal or short term business.

There is also the Farmers' Home Loan Association which may be able to help with your credit needs, if you can't get credit somewhere else.

In other words, right near you—in your own community—there is a good source of farm credit. Don't hesitate to talk over your needs with some loan agency any more than you would hesitate to buy a piece of farm machinery. **But** go prepared with a financial statement showing just **how you stand** and **what you expect to use the money for.**

WATCH YOUR STEP!

ALL of us have had the unpleasant experience of missing the last step or group of steps, thinking we had reached the bottom.

The Pennsylvania Medical Society says that this is one of the chief sources of accidents in the home, often very serious, particularly if it happens to an elderly person. **It can be prevented** by hanging onto the stair rail or banister.

Home accidents kill over 27,000 people in the United States annually. Half of these are caused by falls. Lack of good lighting, particularly on steps or stair landings, causes many accidents. Don't try to save on electricity here.

Another chief cause of home accidents is a rickety step ladder or chair. Women in a hurry get hurt by piling a box or stool on a chair and climbing on it. People in a hurry—old or young—often end up in the hospital because they do not take time to be safe. **Take time**—it may save you from agony and maybe even death.



THE beginning of the New Year should be a time of hope. How is it with you? The trouble with most of us with our finite minds is that we cannot see far either backward or forward. We form our conclusions from the world of today, and when today is not good—as it is now—we lose faith and hope and throw up our hands in despair. Too easily we conclude that things will always be the way they are now—or worse. Equally wrong is to conclude, when we are riding the crest of the wave, that there never will be any trough or valley. True progress can only be measured over long periods of time.

Take a look at the world when Jesus was born 2,000 years ago. Almost all women were slaves or chattels; the hard work was done by hand. The individual counted for nothing. Might made right. Government and kings were absolute. The people existed for the state, never the state for the people. Freedom of the individual was unheard of.

Not much over one hundred years ago, right here in America, insane persons were classed as criminals and brutally treated. Men and women, unable to pay their debts, were thrown into the same small foul rooms of prisons.

Now, let's forget for the moment individual and world problems and troubles of today, for they will pass as others have passed over the years. Instead, let us lift up our eyes in hope and take a look at the encouraging and wonderful gains for the common man in the last 2,000 years. Yes, even in our time in the last fifty years.

Of course progress was not made in one straight upward line. Wars have followed wars, and depression has followed depression. But always also, thank God, over a period of time, there has been progress for the forces of cooperation, democracy, Christianity, and the brotherhood of man.

So it will be with you and all the rest of us. We take three steps forward, lose two of them maybe, but still gain one. But to make that gain, each of us must keep the faith and do our part. Oliver Cromwell stated a great truth when he said:

"Trust in God but keep your powder dry."

Each of us has a responsibility to "keep our powder dry." Then, if we do our part, if we keep the faith, we can say with Bulwer-Lytton:

Truth forever on the scaffold;
Wrong forever on the throne
But that scaffold sways the future,
and behind the dim unknown
Standeth God within the shadow,
keeping watch above his own.

EASTMAN'S CHESTNUT

MY friend and associate, Gordon Conklin, editor of American Agriculturist, was wielding his paint brush recently on the ceiling of a high room in his beautiful home at Trumansburg.

Coming into the room, Mrs. Conklin said:

"Have you got a firm grip on that brush?"

Gordon replied: "Sure I have!"

"All right, then," she said, "I'll take the ladder away for a while."

SERVICE BUREAU

OVERCHARGED!

"I hired some haying done and, after I paid the bill, I found that the man overcharged me $100. In a farm paper I saw a list, giving standard charges for various operations and this is the basis for my claim that he overcharged me. Can you help me get the $100 back?"

We can see no chance of getting a rebate on this charge. A customer has a perfect right to ask what the charge will be before the agreement is made. The man who will do the work has a perfect right to quote what rate he wants but the customer does not have to accept it. He can refuse it altogether; he can bargain for a lower price; or he can look for another man to do the job.

When the job is finished and the bill is paid, there is the assumption that the customer was satisfied with the charge. If he feels that the bill is unreasonable, he can refuse to pay it in which case the only way it can be collected is by suit. But, after it has been paid, the only way he can get a rebate, except by willing adjustment, is by bringing suit. In this case we would be very skeptical about the success of any such suit.

DISAPPOINTED!

"I am surprised and disappointed in your Service Bureau. You only wrote letters about my complaint, which I could have done myself."

We like to make it very clear that we cannot guarantee results. We can arbitrate and we can urge, but if an individual or a concern refuses to pay a debt or make an adjustment the only legal recourse is to bring suit, and that is something we are not in a position to do.

We would like to point out that lawyers charge a fee for their services, whether they are successful or not. We do not charge even when we are successful, and we are proud of the fact that there are cases where we have been successful after a lawyer has failed.

We want to emphasize that we are successful in the majority of cases, that our services are available to our readers at no cost to them, and, frankly, it does hurt a bit when a subscriber is so emphatically dissatisfied.

LINE FENCE

"My neighbor refuses to repair his share of the line fence because he is not pasturing stock on the place. Can he be made to do it?"

Since we have received a number of similar inquiries recently, we are printing this letter.

According to the New York State law on fencing, each adjoining property owner must build and maintain his half of the line fence, regardless of whether or not he pastures cattle on the farm. If he fails to do so, the neighbor can call in the Fence Viewers (Town Assessors) who have the authority to order the delinquent owner to take care of his fence. If he does not, the Fence Viewers can authorize the neighbor to do so and the cost is legally collectible.

NOT RECOGNIZED

"Would you check on this for me? I would like to take a home study course in practical nursing. The fee is $216."

New York State, as well as many others, does not recognize correspondence schools for nursing. In order to be licensed as a practical nurse you have to pass the State Board examination, and you have to be graduated from an approved school of practical nursing.

For information on approved schools, you can write the State Board of Nurse Examiners at your state capital.

LONG SEARCH

"About 20 years ago we purchased a farm and woodlot. Three years ago we decided to sell and engaged a lawyer. He says that we did not get a clear deed when we bought and that much has to be done before we can give clear title. It still is not straightened out after three years."

This points up the importance of having a lawyer handle any real estate transactions, whether buying or selling. If our subscriber had had a good lawyer at the time he purchased the property, he would have been sure of a clear title and would have avoided this trouble.

AVOID BIG RISKS

"A salesman has been around looking up widows, trying to get them to invest in a number of things. It seems as though this should be investigated."

There are always people trying to sell worthless securities to the uninformed. One way to do it is by high pressure sales talk over the 'phone, but salesmen also make personal calls.

The best advice we can give concerning investments is to consult with someone you know, either a bank official or a local dealer in securities with a top reputation. There is no such thing as an investment without risk, but it is a well-known fact that the greater the security, the lower the returns. Therefore, anyone who buys on a promise of high returns stands a greater risk of losing everything.

CAN YOU HELP?

Mrs. Beulah Anderson, 4650 Christian Drive, Clarence, N. Y. is very anxious to buy a dried apple granny doll, or to get the directions for making one.

Mrs. Earle Welch, R.F.D. 1, Mt. Vernon, Me. needs a part for her Standard sewing machine, made in Cleveland, O. around 1915. If you know of this company, or where she might get a spring for the machine, please write to her.

Mrs. Welch also would like the words to the song, "Josie," which originated in New Hampshire some years ago.

If you have an instruction manual for an old New England Sewing Machine, treadle type, which you would lend or sell, please write Mrs. David L. DeWolfe, RFD Box 171, Falls Village, Conn.

An item of historical significance in agricultural information service is a simple questionnaire printed by Orange Judd in 1862. A report was sent in to Orange Judd on this form each month for five months, beginning May of that year. If you should happen to have a copy of this form in your attic, or know where one could be found, please let us know.

Mrs. Alice Hunt, Genoa, New York, would like to thank all our readers who wrote her about black popcorn seed. The response has been so heavy that it is not possible for her to answer all of the letters personally.

Eye Lost When Kicked By Cow



Mr. David Jones of Erieville, N. Y. received $1808.00 from local agent Charles Graham. The accident happened during the evening milking. Mr. Jones was about to put milkers on, the cow wasn't a kicker but a nervous type. As he was putting on suction she let fly. Mr. Jones was knocked over, his head hitting the floor type milker. Benefits were paid from two North American accident policies as follows:

Series 505	— Loss of eye, plus accumulations benefits	$1125.00
	Hospital benefits	85.00
Series ME26A	— Medical Expense benefits	598.00
	Total	$1808.00

Mr. Jones' Letter of Thanks

Money can never replace an eye but it sure comes in handy now. I can surely recommend North American.

David L Jones

A Friend's Name May Be in This List

Lester E. Wolfer, Centerville, N. Y. 101.64
Slipped on stone—broke foot bone

George J. Volk, South Dayton, N. Y. 423.03
Crushed by cow—injured elbow

Helen Allen, Port Byron, N. Y. 312.00
Kicked by cow—fractured elbow

John S. Dybka, Cherry Creek, N. Y. 511.60
Truck accident—injured rib, chest, shoulder

Clarence Whittaker, South Otselic, N. Y. 207.86
Auto accident—fractured ribs

Leon J. Reynolds, Cortland, N. Y. 321.15
Jumped from ladder—injured ankle

Harlie Newman, Hancock, N. Y. 360.00
Tractor accident in woods—injured back

Lloyd Didget, Stafford, N. Y. 168.53
Hit by cow—badly cut scalp

H. Pliny Kirby, Newport, N. Y. 167.14
Kicked by cow—chipped fracture leg, cuts

John Sweredoski, Lowville, N. Y. 417.84
Bunted by heifer—injured pelvis

C. Herbert Johnson, Fort Plain, N. Y. 655.00
Gored by heifer—broke leg, injured ankle & foot

Sherwood L. Waterman, No. Western, N. Y. 155.00
Pallet fell on leg—fractured leg

Russell Michels, Clay, N. Y. 235.72
Truck accident—injured ankle, cuts & bruises

Anna Mueller, Naples, N. Y. 187.00
Fell down stairs—injured head & shoulder

Walter Szelagowski, Port Jervis, N. Y. 186.43
Fell off wagon—injured back & leg

Harold Townsend, Albion, N. Y. 872.04
Slipped on ice—fractured pubic bone

Carol Jacobs, Cherry Valley, N. Y. 327.16
Ladder tipped over—fractured arm & elbow

Kenneth Phelix, Hopkinton, N. Y. 362.00
Fell off wagon—injured neck & back

Donald Armlin, Middlebury, N. Y. 162.86
Kicked by cow—bruised flank

Harry Smith, Addison, N. Y. 260.00
Crushed by heifer—fractured leg

Adam Gatz, Riverhead, N. Y. 125.99
Fell—fractured bone in foot

Michael Dominie, Candor, N. Y. 370.11
Loading calf on truck—badly cut hand

Edgar J. Snyder, Groton, N. Y. 128.56
Fell on steps—injured back

Pauline Schuldt, Sodus, N. Y. 468.00
Fell-badly fractured wrist

Rex A. Young, Sabinsville, Pa. 142.14
Fell from ladder—fractured wrist

Norman R. Brewer, Millerton, Pa. 313.85
Fell—injured back

Harold W. Wilson, Mansfield, Pa. 174.28
Tractor accident—fractured wrist

Edmund Hagopian, Blairstown, N. J. 136.17
Spreader hitch fell on hand—cuts & bruises

Viola Felloney, Sewell, N. J. 285.50
Slipped on ice—fractured leg

Oscar Gaunt, Elmer, N. J. 141.68
Sawing wood—cut fingers

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING ITHACA, NEW YORK

IF YOU DON'T DRINK

THIS IS THE NEW LOW-COST HOSPITALIZATION PROTECTION YOU ARE ENTITLED TO

Pays $100.00 Weekly from First Day for Life to Readers of AMERICAN AGRICULTURIST

NO WAITING PERIODS * ONLY YOU CAN CANCEL NO AGE LIMIT * NO SALESMAN WILL CALL

If you are the one American in four who does not drink, the Gold Star Total Abstainers' Hospitalization Policy will pay you $100.00 a week in cash, from your first day in the hospital and will continue paying as long as you are there, even for life!

If you do not drink and are carrying ordinary hospitalization insurance, you are of course helping to pay for the accidents and hospital bills of those who drink. Alcoholism is our nation's #3 health problem, ranking immediately behind heart disease and cancer! With the GOLD STAR PLAN you are not called upon to help pay the high bills for the ailments and accidents of those who drink. GOLD STAR rates are based on the SUPERIOR HEALTH RECORDS of Non-Drinkers!

For the first time, you can get the newest and most modern type of hospitalization coverage at unbelievably low rates, because the Gold Star Policy is offered only to non-drinkers. And your low Gold Star premium can never be raised because you have grown older or have had too many claims. Only in the event of a general rate adjustment up or down for all policyholders can your rate be changed!

One out of every seven people will spend some time in the hospital this year. Every day over 64,000 people enter the hospital—47,000 of these for the first time!

READ WHAT A BLESSING THIS PROTECTION HAS BEEN TO OTHERS

Mr. & Mrs. Robert W. Nelson, Leicester, Massachusetts: "We appreciate your promptness in approving this claim and sending a check. We had long searched for this type of policy which would be adequate yet within our means. We thank the Lord for leading us to your ad in Moody Monthly."

Charles Himes, Williamsport, Pennsylvania: "Thanks for the check for the 12 days in Williamsport Hospital. I am convalescing slowly, but trust I shall not need your help again soon. I appreciate your service and unhesitatingly recommend the same."

Chris T. Milton, Richlands, Virginia: "I wish to thank you for your check in respect to my confinement in the hospital for sickness, and for the prompt way in which you dealt with my claim."

Dorothea Buck, Jamestown, New York: "The kind letter, also check enclosed, brought cheer and encouragement. Accept my hearty appreciation for prompt and most satisfactory settlement of claim."

W. D. Barrett, Hickory, North Carolina: "I was delighted to receive the check this morning, and I thought it unusual for you to send it airmail special delivery. This kind of service is greatly appreciated!"

Mr. Lewis M. Oster, Junction, Maine. "This will acknowledge receipt of your generous check a few days ago covering my recent disability and enforced hospitalization. Having become associated with your fine organization only recently, and then to find myself compelled to report my first sickness just a month later, certainly was an embarrassing experience. But, as we all know sickness and accidents rarely give warnings. So, please accept my deepest appreciation for your very speedy and generous settlement of my claim."

LOW RATES FOR NON-DRINKERS

With a Gold Star Total Abstainers' Hospitalization Policy, you receive $100.00 per week in cash, as long as you remain in the hospital, starting from your very first day there, for either sickness or accident. If your hospital stay is less than one week, you still collect at the rate of $14.29 per day. Even if you are already covered by another policy, the GOLD STAR PLAN will supplement that coverage, and will pay you directly, in addition to your present policy. And your benefits are tax-free!

This wonderful, generous protection costs only $4 a month for each adult, age 19 through 64, or $40 for twelve full months. For each child under 19, the rate is just $3 for a month's protection. And for each adult of age 65 through 100, the premium is only $6 a month, or $60 for a full year.

And remember, with Gold Star, the NO LIMIT Hospital Plan, there is NO LIMIT on how long you can stay in the hospital, NO LIMIT on the number of times you can collect (and the Company can never cancel your policy), and NO LIMIT on age!

Compare this plan with others. We welcome comparison because the GOLD STAR PLAN pays from the very first day (we can't pay any sooner); and it pays forever . . . as long as you remain in the hospital (we can't pay any longer!).

Check These Remarkable Features:

- Only YOU can cancel.
- Good in any lawfully operating hospital anywhere in the world!
- Pays *in addition* to any other hospital insurance you may carry.
- All benefits paid directly to you in cash—tax free!
- Claim checks are sent out Airmail Special Delivery!
- No age limit.
- Immediate coverage! Full benefits go into effect noon of the day your policy is issued.
- No limit on the number of times you can collect.
- Pays whether you are in the hospital for only o day or two, or for many weeks, months, or even years!



- No policy fees or enrollment fees!
- Ten-day unconditionol money-back guarantee!
- Every kind of sickness and accident covered except, of course: pregnancy; any act of war; pre-existing conditions; or hospitalization caused by use of alcoholic beverages or narcotics. Everything else IS covered.

HERE ARE YOUR GOLD STAR BENEFITS

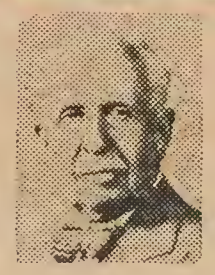
Poys you $100.00 weekly for life while you are in the hospital.

Pays $2,000.00 cash for accidentol deoth.

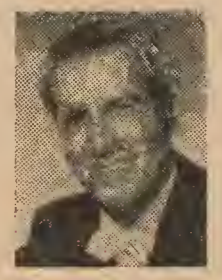
Pays $2,000.00 cash for loss of one hond, or one foot, or sight of one eye.

Pays $6,000.00 cosh for loss of both honds, or both feet, or sight of both eyes.

OUTSTANDING LEADERS SAY—



J. C. PENNEY, philanthropist Founder of the J. C. Penney Company: "I have a sincere conviction that liquor is one of the chief causes of unhappiness both to the people who drink and to those who are near and dear to them. Early in my life I decided not to touch liquor. I am delighted to know of the De Moss Gold Star Total Abstainers' Plan that provides a premium so much lower. This is the way it should be because most automobile and other accidents occur because of drinking."



JEROME HINES, Leading bass with the Metropolitan Opera Company: "The non-drinker is a better risk and should be entitled to a better insurance rate. There has long been a need for a special hospital plan for total abstainers. Having known Art De Moss for a long time, I am most happy to recommend this low cost Gold Star Policy. It should prove to be a real help and blessing to all who can qualify."



DR. DANIEL A. POLING, noted minister and Editor of The Christian Herald: "The advantages of a hospital plan which is available to non-drinkers only are obvious. The lower rate is made possible because you are not paying the bills for the illnesses and accidents of those who use alcohol."

HERE'S ALL YOU DO:

1. Fill out application below.
2. Enclose in an envelope with your first payment.
3. Mail to De Moss Associates, Inc. Valley Forge, Pa.

You will receive your GOLD STAR POLICY promptly by mail.
No Salesman will call.

APPLICATION FOR

Gold Star Total Abstainers' Hospitalization Policy

My name is_____ 016-0162

Street or RD#_____

City_____ Zone____ State_____

Date of Birth: Month____ Day____ Year____ Height____ Weight____

My occupation is_____

My beneficiary is_____ Relationship_____

I also apply for coverage for the members of my family listed below:

NAME	AGE	HEIGHT	WEIGHT	BENEFICIARY
1.				
2.				
3.				

To the best of your knowledge and belief, have you or any person listed above ever had high or low blood pressure, heart trouble, diabetes, cancer, arthritis or tuberculosis or have you or they, within the last five years, been disabled by either accident or illness, had medical advice or treatment, taken medication for any condition, or been advised to have a surgical operation? Yes____ No____

If so, give details stating person affected, cause, date, name and address of attending physician and whether fully recovered:_____

Neither I nor any other person listed above uses alcoholic beverages, and I hereby do apply for a policy with the understanding that the policy will not cover any conditions existing prior to the issue date, and that it shall be issued solely and entirely in reliance upon the written answers to the above questions.

Date:_____ Signed: X

FORM GS 713-3

HERE ARE THE LOW GOLD STAR RATES

	IF YOU PAY MONTHLY	IF YOU PAY YEARLY
Each adult age 19-64 pays	$4.	$40.
Each adult age 65-100 pays	6.	60.
Each child age 18 and under pays	3.	30.

SAVE 16 2/3% BY PAYING YEARLY!

MAIL THIS APPLICATION WITH YOUR FIRST PREMIUM TO **DE MOSS ASSOCIATES, INC. VALLEY FORGE PENNA.**

THE GOLD STAR PLAN is underwritten by the following leading companies (depending upon your State of residence):

NATIONAL LIBERTY LIFE INSURANCE COMPANY
Valley Forge, Penna.

OLD SECURITY LIFE INSURANCE COMPANY
Kansas City, Missouri

WORLD MUTUAL HEALTH & ACCIDENT INS. CO. OF PENNA.
King of Prussia, Pa.

This is the same **GOLD STAR PLAN** as offered in the following leading publications.



- American Agriculturist
- Capper's Weekly
- Dakota Farmer
- Farm Journal
- Farm & Ranch
- Farmer Stockman
- The Farmer
- Grit
- Life & Health
- National Livestock Producer
- Prevention
- Reader's Digest
- Rural New Yorker
- Workbasket





MONEY-BACK GUARANTEE

We'll mail your policy to your home. No salesman will call. In the privacy of your own home, read the policy over. Examine it carefully. Have it checked by your lawyer, your doctor, your friends or some trusted advisor. Make sure it provides exactly what we've told you it does. Then, if for any reason whatsoever you are not fully satisfied, just mail your policy back within ten days, and we'll cheerfully refund your entire premium by return mail, with no questions asked. So, you see, you have everything to gain and nothing to lose.

This plan offered exclusively by

DE MOSS ASSOCIATES, Inc.
VALLEY FORGE, PENNA.
and Affiliates

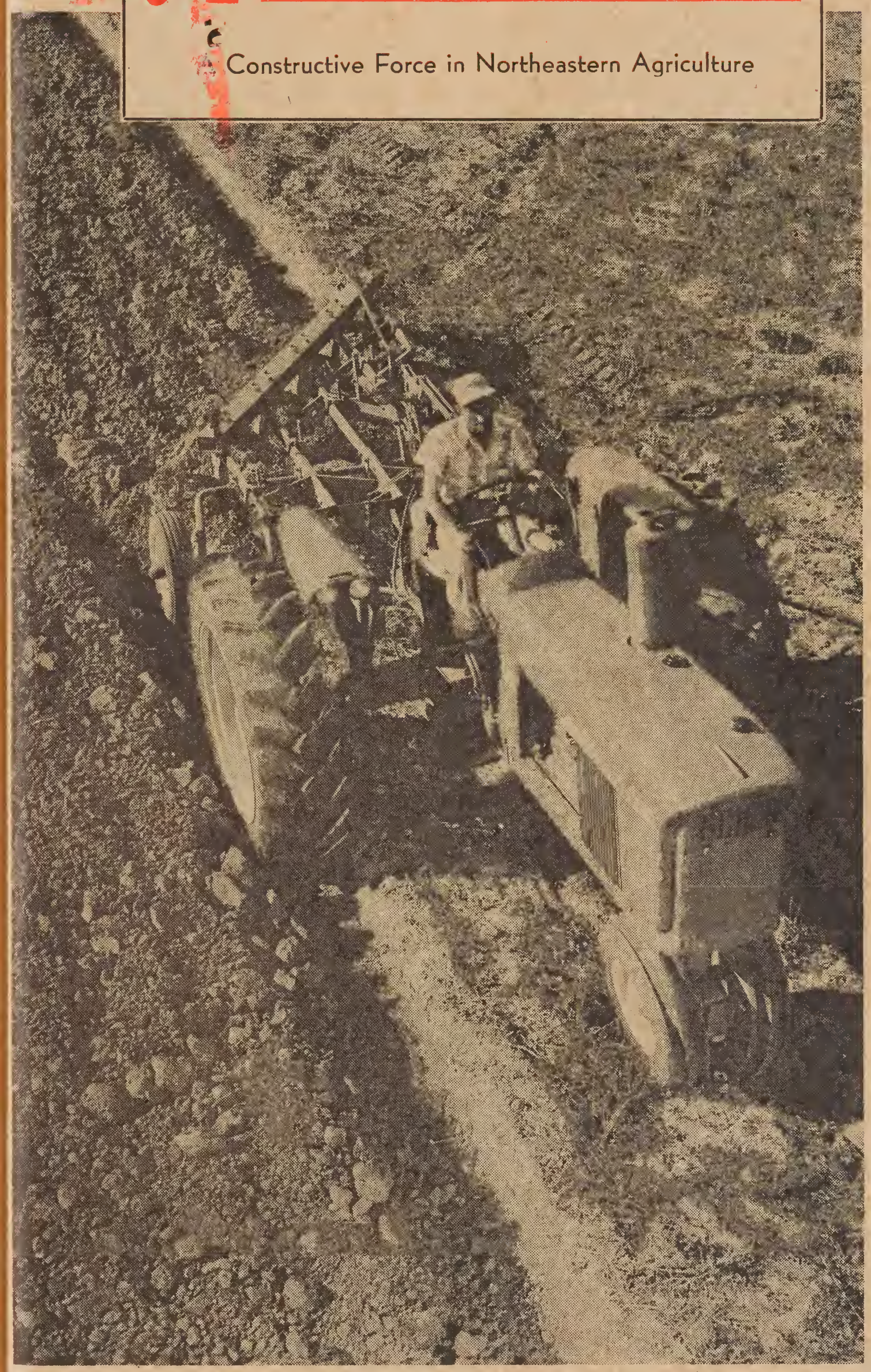
"Special Protection for Special People"

Founded 1842

AMERICAN AGRICULTURIST

Constructive Force in Northeastern Agriculture

FEBRUARY 1962



A good job of plowing is the first step, whether using minimum tillage or not.

Minimum Tillage Report

By Hugh Wilson*

THERE SEEMS to be some confusion as to what is meant by minimum tillage. Articles have been written which imply that it is something new and mysterious; some folks think it applies to a prescribed number of fitting operations. Actually, minimum tillage is simply the preparation of a satisfactory seedbed **with no more tillage than is needed.** Depending on conditions, this may require few or many times over a field. There certainly is nothing new about this; what is new are a few ideas as to what constitutes a good seedbed, and some developments in equipment.

The kind of seedbed to prepare is greatly influenced by the kind of weather that may be expected following planting. For instance, when drought is anticipated, we want a firm, smooth and pulverized soil that will conserve moisture. But here in the Northeast most of our crops are planted during the spring months when drought is unusual. In fact, long term records show that from April to June the odds are 4 to 1 that the weather will be wet and cold. Hence, for crops planted in this period, best results will usually be obtained if the seedbed is designed for wet weather. Such seedbeds allow excess water to drain away, keep the seed reasonably warm, and reduce the danger of soil crusting.

An ideal "wet weather" seedbed is moderately loose with only enough firming to reduce large air pockets. In contact with and surrounding the seed is a layer of granulated soil particles ranging from 1/16 to 1/4 of an inch in diameter. The surface consists of nut to egg size lumps which resist the pounding of raindrops, break down slowly and reduce crusting.

Corn does especially well on wet weather seedbeds for several reasons. Because corn is a tropical plant, it responds to the warmer temperatures that are found in well aerated seedbeds. It has a large, fast growing seed that can be planted more than an inch deep. Hence, there is room for both the fine granulated soil around the seed and the surface protecting lumps on top. Excellent yields of corn have been obtained when a narrow band on either side of the seed is made moderately firm, and the rest of the field is left loose and cloddy. This so-called "strip" method is becoming increasingly popular.

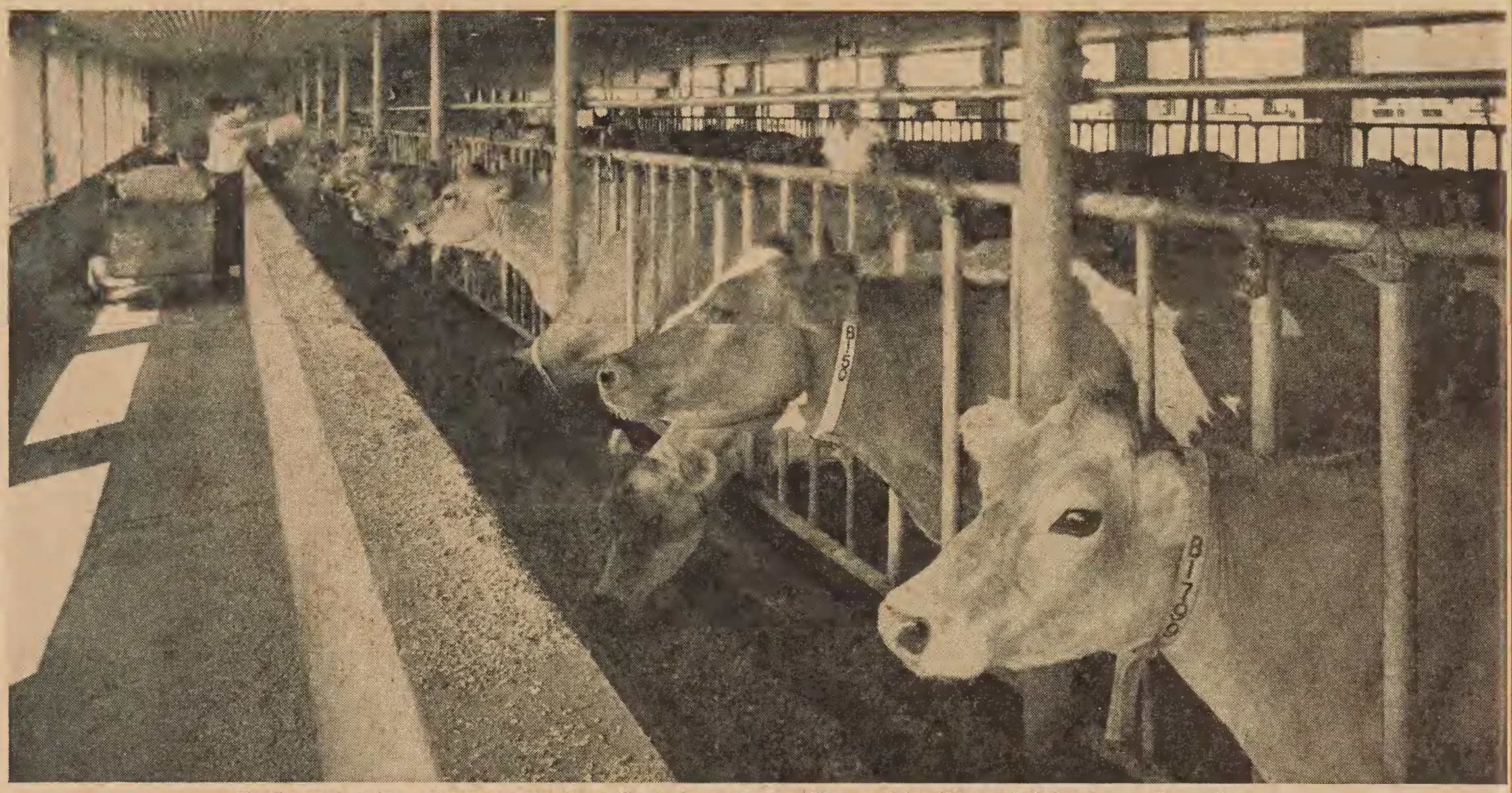
Although further testing is needed, it seems reasonable that beans and other large seeded

*Department of Agronomy, Cornell University, Ithaca, N. Y.

(Continued on Page 43)

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Feeds containing AUREOMYCIN keep Gustafson cows in the good health needed for top milk production.

3,400 COWS AT GUSTAFSON'S KEEP MILKING UP TO POTENTIAL

"They stay up to potential for a longer time," says manager Dave Lee, "because they stay in better health. And the big reason for that is the antibiotic, AUREOMYCIN."

One of the largest family-owned dairies in the world is Gustafson's Dairy, Inc., located on 4,700 acres at Glen Cove Springs, Florida. One million quarts of milk flow monthly from Gustafson cows to consumers in Florida.

Present-day owners are Edwin, Noel and Pete Gustafson, sons of "Mama and Papa Gus" who established the dairy farm in 1908. Under good management practices, the dairy has steadily expanded, and today 3,400 milking cows are regularly kept in the milking line. In addition, the Gustafsons grow out more than a thousand of their own calves each year.



Edwin, Noel and Pete Gustafson, owners of Gustafson's Dairy, Inc.

Calves thrive on Aureomycin

The Gustafson calf program is personally under the supervision of farm manager Dave Lee. This program includes good breeding and good management and the use of AUREOMYCIN®. "Mortality in our calves has been cut to 2%, and we attribute this to AUREOMYCIN," says Dave Lee. "AUREOMYCIN helps control scours, keeps diseases down and helps produce sounder, better herd replacements."

Cows stay healthier for top production

AUREOMYCIN is fed continuously to the Gustafson milking herd in a specially formulated feed which provides the antibiotic at a level to assure a daily intake of 0.1 milligrams per pound of body weight. AUREOMYCIN aids in reducing bacterial diarrhea, foot rot and respiratory infections. "Better all-round health and vigor keep our cows milking to their full potential with longer milking life," says Lee.

See your feed man

AUREOMYCIN can help *you* run a more successful dairy operation. Ask your feed manufacturer or feed dealer for calf starters and dairy supplements containing AUREOMYCIN. American Cyanamid Company, Agricultural Division, Princeton, N. J. ®*AUREOMYCIN is American Cyanamid Company's trademark for chlortetracycline.*

The label instructions on Cyanamid products, and on products containing Cyanamid ingredients, are the result of years of research and have been accepted by Federal and/or State Governments. Always read the labels and carefully follow directions for use.

CYANAMID

AUREOMYCIN
IN DAIRY FEEDS

CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE



Editorials

By Gordon Conklin

STRONG MEN

SOMEHOW, it seems altogether fitting that two of our nation's greatest leaders first drew breath in the bitter cold of February. It is—and was—a month when the gray ghosts of driven snow howl their melancholy message across the land, making people wonder if spring will ever return.

George Washington and Abraham Lincoln, born in a month that has more than its share of struggle and hardship, must have known times when they wondered if they could survive the demands before them. One is remembered for his part in a bitter struggle against an enemy from without, the other in connection with a vastly more savage conflict within the nation.

But the bedrock of their convictions and the goals which they sought were the same. Perhaps Lincoln said it best in that immortal phrase " . . . that government of the people, by the people, and for the people shall not perish from the earth."

And now it is our turn to place our footprints upon the wet mortar of history and record there the nature of our convictions. Beset from without by an enemy who claims the desire and capacity to bury us, torn from within by an ever-growing desire to seek collective security at any price—what will the history books of the year 2,000 say about us?

May it record that we encouraged and accepted constructive change, but did not betray the principles of democracy which these men bequeathed to us!

STOMACH PROTECTION

NEW YORK's Governor Rockefeller, after holding a wet finger to the political wind has reversed his position and now favors the dating of milk sold at retail in New York City. Supposedly, this is to protect consumers from the possibility of contaminating their stomachs with sour milk. This possibility is extremely remote; the practice of dating milk hurts the dairyman without really benefiting the consumer.

There seems to be great interest in protecting consumers from ever drinking any off-flavor milk, but at the same time both the Governor and State legislators seem reluctant to bring to a vote the question of legal age for consuming liquid lightning. A law that would raise the legal age (from 18 to 21) at which alcoholic beverages may be sold to young people languishes in study committees of both legislative branches for the second year.

My mind's eye always superimposes a number of scenes across the page embellished with "the man of distinction." Among them is one etched in memory of the fuzzy-faced youngster clinging to a parking meter and weakly retching out what he had just chug-a-lugged to prove his manhood. But most of these young folks **do** have money in their jeans, so the opposition to changing the minimum age is vocal—and apparently powerful.

Referral of the bill to study committees in this case is a politically expedient way of avoiding the issue and staying on the right side of those who sell liquor. After all, legislatures of all 48 continental states have considered the question; the minimum age remains at 18 only in the states of Louisiana and New York.

So, milk fed to New York City's teenagers may be regulated to the last drop for their protection. The 100-proof firewater is okay.

THE COUNTY AGENT

DUE to the publicity about agricultural surpluses, the Extension Service, particularly the county agricultural agent, has been criticized by some people. Proposals have been made in various forms which would curtail research and extension activities.

The county agents have played a real part in making two blades of grass grow where only one grew before. Theirs has been a leading role in spreading the gospel of improved technology and consequent increase in output per acre, per animal, and per worker.

The fact that each farm worker produces enough food for himself and 24 others is due in large measure to the county agent, because improved technology doesn't **do** much until it is widely put to use. Personally, I feel such high productivity will be called progress by history, rather than something undesirable.

A democracy owes its existence to informed and responsible citizens. In addition to providing technical information, the county agent has had a part in developing local leadership, in helping groups and individuals come to grips with problems realistically and constructively. His motto has always been to "help people help themselves."

The world has beat a path to this nation's door to study how our county agent system works. It seeks the magic lamp of widely dispersed information that has unlocked the storehouse of material abundance and at the same time added its mortar to the temple of human freedom.

CAPTAINS OF OUR FATE

SOME folks deplore the "inexorable laws" of supply and demand in a free enterprise economy, saying that they are heartless when compared to administrative decisions made by compassionate people. Therefore, there are those who advocate the modification of free enterprise and the substitution of a system whereby economic justice and opportunity would be more greatly influenced by laws and administrators.

We don't have to live many years to discover that to get something usually means giving up something else. As an example, we must give up a certain amount of freedom of choice in order to have more security. Whether it's a new car or supply management, the question we ask ourselves is whether the thing desired is worth the price which must be paid.

Contributing editor Hugh Cosline has visited with many farmers in the Northeast about the question of supply management. From these visits, and from a lifetime of contact with farm people and specialists in public policy, he has drawn ideas for the thought-provoking article on page 10 of this issue. Be sure and read it; then resolve to sit down and write us your reaction.

CONSUMERS CHOOSE

ANY editor, being human, can easily get the mistaken idea that people should be much pleased with everything he writes. If he gets brickbats in place of bouquets, he may suddenly wonder what is wrong with people — how can they turn up their noses at such scholarly or witty offerings?

Farmers may sometimes feel the same way about changes in consumer appetites and desires. If consumers decide to drink more milk and therefore less orange juice, the citrus growers claim that consumers must be unaware of the good points of orange juice. Surely, they argue, everyone should know that orange juice is superior to milk, and research intended to prove the point is immediately started.

It's important to carry on honest promotion of farm products and nutritional research programs that reach conclusions **after** experimentation. But it's also important for farmers to keep tuned to changes in consumer tastes so that corresponding management changes can be made.

TAXES STIFLE BUSINESS

HIGH TAXES deprive us of the freedom to spend a good part of the money we earn as we would like to spend it. Taxes also slow down business and the number of new jobs available, by taking as taxes money that would otherwise be used for modernization or expansion of factories.

Taxes should be cut, especially Federal taxes. But even though the total might not be cut, a good overhaul of tax laws is indicated.

If all tax rates above 50% were dropped, it would cut the government "take" only $1 in every $100 of taxes. If all excess profits taxes above 70% were dropped it would reduce government income by only 2/10th of 1%.

It is even possible that such action would increase total tax income through stimulation of business expansion and new jobs.

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WITH MULTI-POWER DRIVE

Meet the new Massey-Ferguson 50 . . . the strongest, fuel-savin'est 3-plow MF 50 that ever stepped down the rows! Basically, it's the same versatile Ferguson System tractor, famed for easy, precise handling of all mid- and rear-mounted implements. Now it comes in diesel, too—powered by the same 3-cylinder M-F engine that re-wrote the records on fuel efficiency in the 35-40 hp class. But that's not all. This new MF 50 Diesel is available with Massey-Ferguson's new Multi-Power transmission. It's the simplest, most practical shift on-the-go ever made. Lets you gear down or speed up—right on the go—at the flip of a switch. Gives you split-second fingertip control over ground speed, without affecting PTO speed. Changes gears smoothly, effortlessly, without any clashing jolt. Also gives you 12 different forward speeds—all in direct gear drive. Includes 8 hard-working speeds in the vital range of 1 to 6.9 mph. In short, Multi-Power gives this MF 50 more gear speeds, more get-up-and-go than ever before. And it's also available on the MF 50 gasoline model. Why not call on your nearby Massey-Ferguson Dealer and see for yourself. Work-test this new high-spirited diesel. Shift it on-the-go . . . at the flip of a switch! Ask about Multi-Power's low, low price, and those easy Massey-Ferguson time payment plans. Stop in today!



Now shift on-the-go at the flip of a switch!



Look, compare . . . **Massey-Ferguson** World's Largest Manufacturer of Tractors and SP Combines

AA's Farm Dollar Guide

THE DECEMBER UNIFORM MILK PRICE in the New York-New Jersey market was $4.44. In December, 1960, it was $4.66, and the November, 1961 price was $4.60.

December milk prices in other markets, all corrected to a 3.5% butterfat test, are as follows: BOSTON, 201-210 zone, $4.73; BUFFALO, f.o.b. city, $4.38; CONNECTICUT, $5.63 at city plants for nearby zone farmers; ROCHESTER, f.o.b. city, $4.52.

CORNELL UNIVERSITY ESTIMATES that the average price of milk to New York farmers in '62 will be around $4.20, compared to $4.30 in '61. Feed costs are expected to be about the same as in '61.

ADMINISTRATION'S LONG-RANGE PROGRAM FOR AGRICULTURE covers these points: (1) Legislation to extend high supports and controls of products in surplus; (2) Land retirement with payments to farmers for taking cropland out of production; (3) Helping unneeded farm workers to train for other jobs by FHA loans up to $6,000, to be repaid in 20 years starting 2 years after training is completed.

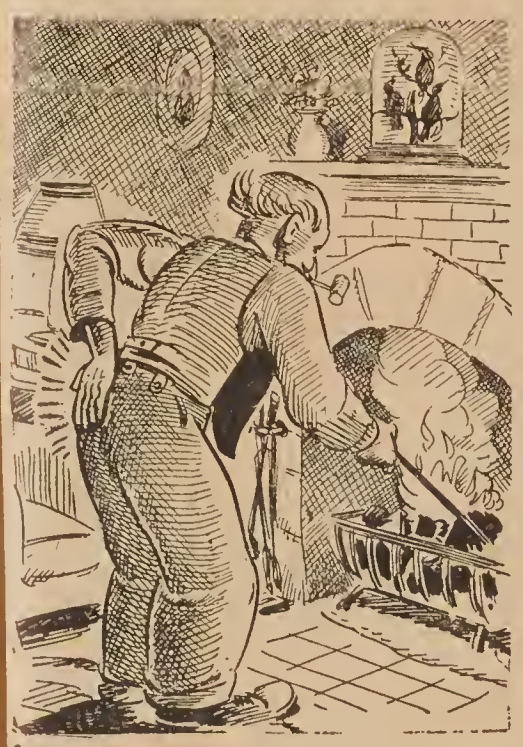
Specifically, aim is to reduce feed grain production in '62 by 10% to 15%; cut wheat acreage by 3 million acres to around 42 million; reduce cost of price supports on milk probably by quotas if Congress passes legislation and two-thirds dairymen approve. Turkey growers probably will vote on marketing orders in February.

THE COST OF LIME AND FERTILIZER has risen least among the supplies farmers buy. Therefore, using labor and equipment on land with no fertilizer-or too little-is likely to be unprofitable.

ALL INCOME TAX RETURNS MUST HAVE AN ACCOUNT NUMBER. If you have a social security number use it; if not, apply for one to office where you will send tax return. Farmers will first use number in '63 for report on '62 income. Internal Revenue plans to check farm income tax returns very carefully. You may be asked to prove figures.

RECENT DISCOVERY is that heavy grain feeding does not harm healthy udders. Recommendation is to feed 5 to 6 lbs. of grain a day, starting a week before freshening and increasing by ½ lb. a day up to cows' maximum appetite. Then lower amount until production begins to drop. A definite ratio, say 1 lb. grain to 4 lbs. milk, tends to underfeed high producers and overfeed the poorer cows!

The Song of the Lazy Farmer



THIS WEATHER, with its ice and snow and temper'tures that drop too low, may suit the kids just perfectly but it's a real pain to me. I s'pose it's 'cause I'm getting old, but I can't stand this kind of cold; if, when it's zero, I expose my nose and ears, they're quickly froze, no longer can my old legs lift me through a frigid waist-deep drift, and even if they could I'd wheeze so much my ancient lungs would freeze. My sense of balance has grown dull, a hog on ice is more graceful than me, I either break my crown or crash-land right where I sit down.

When winter blizzards blanket us with snow, it's much too dangerous for me to venture out-of-doors to help Mirandy with the chores, and though I surely wish I could, I do not dare try chopping wood for fear I'd hurt myself and she a lonesome widow then would be. It's foolishness for me to court such danger, I can best support the efforts of my loving spouse by staying in the house and keep logs roaring on the fire so when Mirandy starts to tire, she quickly can thaw out and then get back to work outside again.

MORE FROM EVERY ACRE
THROUGH CREATIVE SEED RESEARCH



DuPuits is an early riser

NORTHRUP KING

No, DuPuits isn't the name of our little farm friend here! But, it *is* the name of his dad's beautiful crop . . . Northrup King's prolific DuPuits alfalfa.

DuPuits (pronounced "dew-pwee") is known as an early riser because of its happy habit of rapid, early spring growth and unusually fast recovery after cutting. This head-start means DuPuits normally should be cut a week earlier than other varieties, and usually results in an extra cutting each year. It winters well, and is resistant to leaf-spot disease. And, because of its growth characteristics and tolerance to insect damage, DuPuits sends leaf-hoppers packing to easier pickin's.

True, DuPuits makes some demands for its virtues. It asks for fertile soil. It pours its vigor into a comparatively short life (one to three hay years). But, farmers who do right by DuPuits (and thousands do every year) agree that the heavy tonnage of top-quality hay, succulent green-chop, or sweet nutritious silage gives them full measure, and then some, for the little extra cost and care.

This time-conscious alfalfa was the first *privately* developed variety to become successfully established in this country. Last year, well over one-quarter of a million proud acres were added to those under the green and purple banner of DuPuits . . . making it the third most widely planted variety.

Other members of the family

Of course, not everyone is ready for NK's aristocratic DuPuits. For them, NK's general purpose 919 Brand may be the answer. It still requires good soil and good treatment, and provides additional winter hardiness.

Or, are you looking for an exceptionally hardy, long-rotation alfalfa? Northrup King's 10-19 Brand will last year after year under heavy grazing and cutting. It is highly resistant to bacterial wilt disease, and yields especially well in combination with forage grasses.

But, getting back to DuPuits. If you've never planted it before, try it next time you put in alfalfa. What a crop that DuPuits is!

Note: These new alfalfas are all NOCULIZED® seed – already inoculated with the *right* nitrogen-fixing bacteria . . . ready to plant when you get it.

NORTHRUP KING SEEDS / Minneapolis, Minnesota

Egg Assembly Line

Here's a windowless poultry house where one man can handle 10,000 birds.

By GORDON CONKLIN



The feed rolls in and the eggs roll out! Bob Ty gathers them while still "hen warm."

EVER WONDER how those windowless poultry houses are built? Well, let's "ask the man who owns one."

Robert Tyler and his father, Alvin, recently began using a building of this type, designed by Cornell engineer Hollis Davis, at their farm two miles west of Alloway, Wayne County, New York. When its colony cages are full, there are 10,000 "egg machines" busily picking up feed from one trough and tumbling eggs out into another.

The building is 38' x 180' with a 12' x 18' work room and a 12' x 14' refrigerated egg room on one end. Walls are of a "sandwich" type with 2 inches of rock wool insulation between two 4' x 8' masonite hardboard sheets each one-fourth inch thick. The wall panels were prefabricated and all ready to set up when they arrived at the building site.

Went Up Fast

A work force averaging six men had the building up and the roof on just four days after starting the job. Truss rafters eliminated center posts, and aluminum roofing in sheets 21 feet long made for quick work on that part.

Those rafters have to carry plenty of weight, since all cages are suspended from them, a total of about 50 tons of birds, manure, and equipment. To be sure and carry the load, plus any snow, the builders used 2 x 4 knee braces running from studs to rafters. They are so located that there is no interference with activity inside the house.

There are four rows of cages, two tiers per row, the length of the building. Each cage is 2½' x 2' and holds 10 birds, dubbed and debeaked when a day old and debeaked again at 20 weeks.

Light bulbs are spaced at intervals of 12 feet along five rows; 40 watt bulbs are backed by aluminum pie plate reflectors. The Tylers have lights turned on 14 hours and off 10 hours, use this system from the day pullets are housed right on through the production cycle.

With nary a window, electric power does all the ventilating of the building, operating three 36" exhaust fans. One in the center of the house constantly pulls air off the floor, the other two pull air from the ceiling when turned on by thermostats.

Air enters from outside during the summer; dampers force it to come from the attic during cold weather. The sidewall insulation already mentioned, and ceiling rock wool insulation three inches thick, are key items in the ventilation system that maintain temperatures around 50-55° F. Because power is absolutely essential for ventilation, light, and water, the Tylers have an auxiliary generator in case of emergency.

Feeding is done by "gasoline power"—a small engine on a portable feed cart. Alvin, who is 70, can easily feed crumbles to 10,000 birds in an hour with the help of bulk bins, augers, and the feed cart.

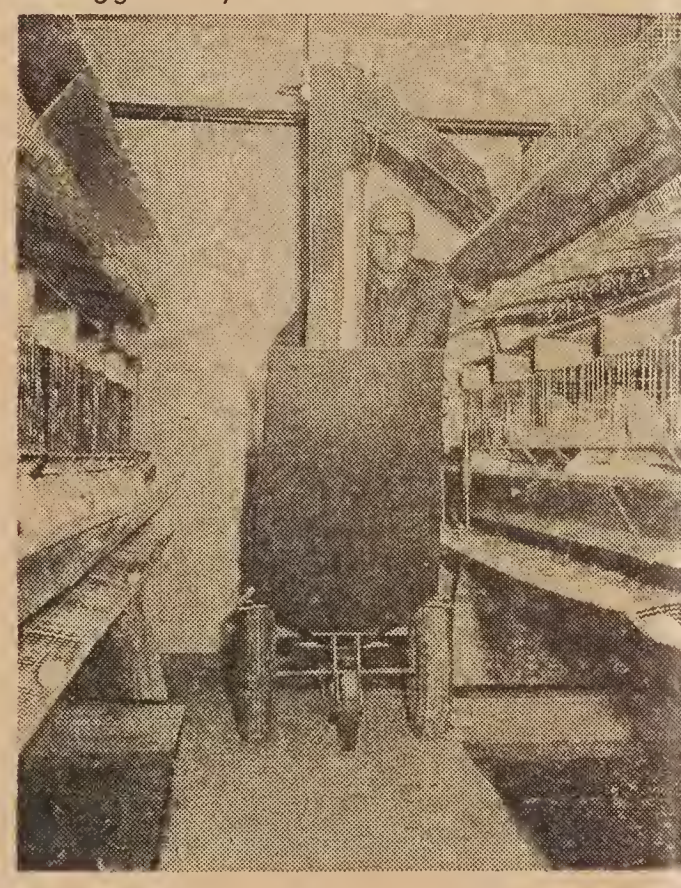
Cleaning the house takes only 80 minutes once a week. Droppings from the lower tier go directly into the pit cleaners, but those from the top tier accumulate on panels across the top of the lower cages. Pushing this accumulation into center openings that lead to the pits seems to frighten the birds. To avoid this, cleaning is done when overhead lights are out, using a flashlight for better aim.

The day I visited, there was practically no "pen perfume" noticeable, and Bob reports that neither odor nor flies have been a problem.

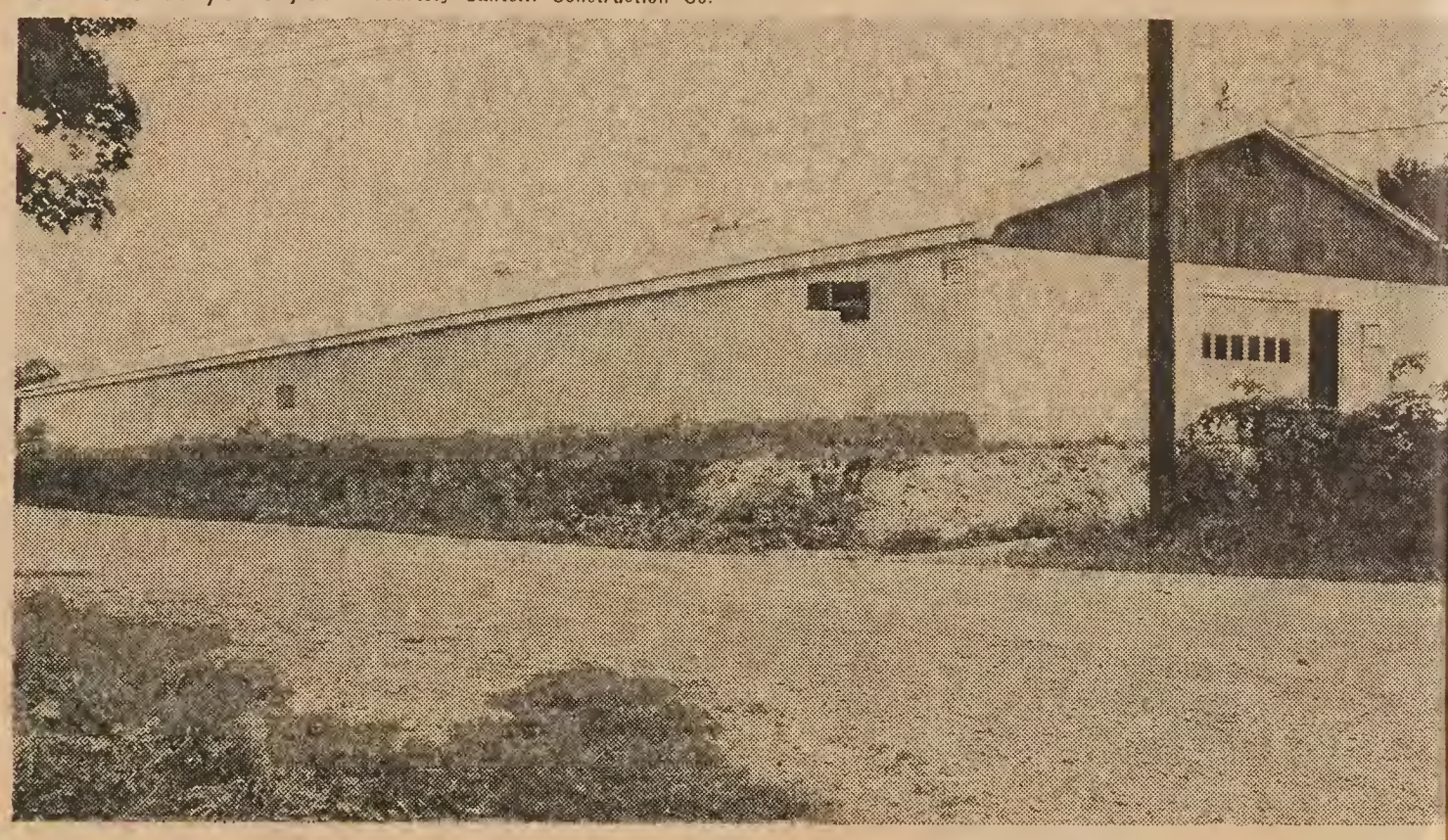
Sure, I know you've been itching to know what all this cost—so let's scratch the itch. Building and equipment rounded off to just

(Continued on Page 34)

Feed is untouched by human hands, "unlugged" by human muscle.

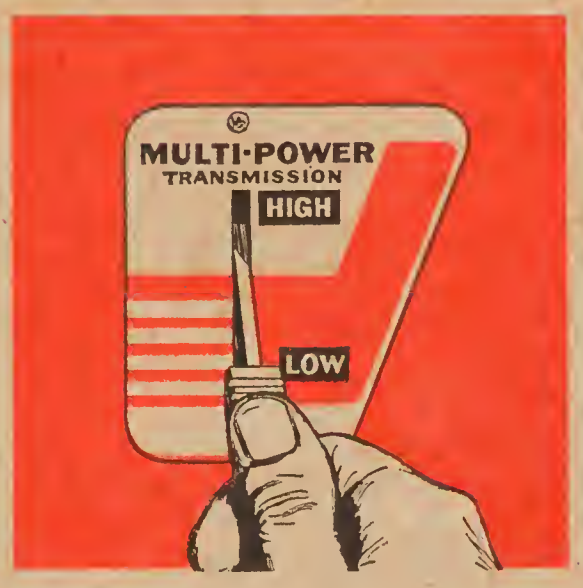


The Tyler poultry house is a far cry from the henhouse of yesteryear.-Courtesy Santelli Construction Co.



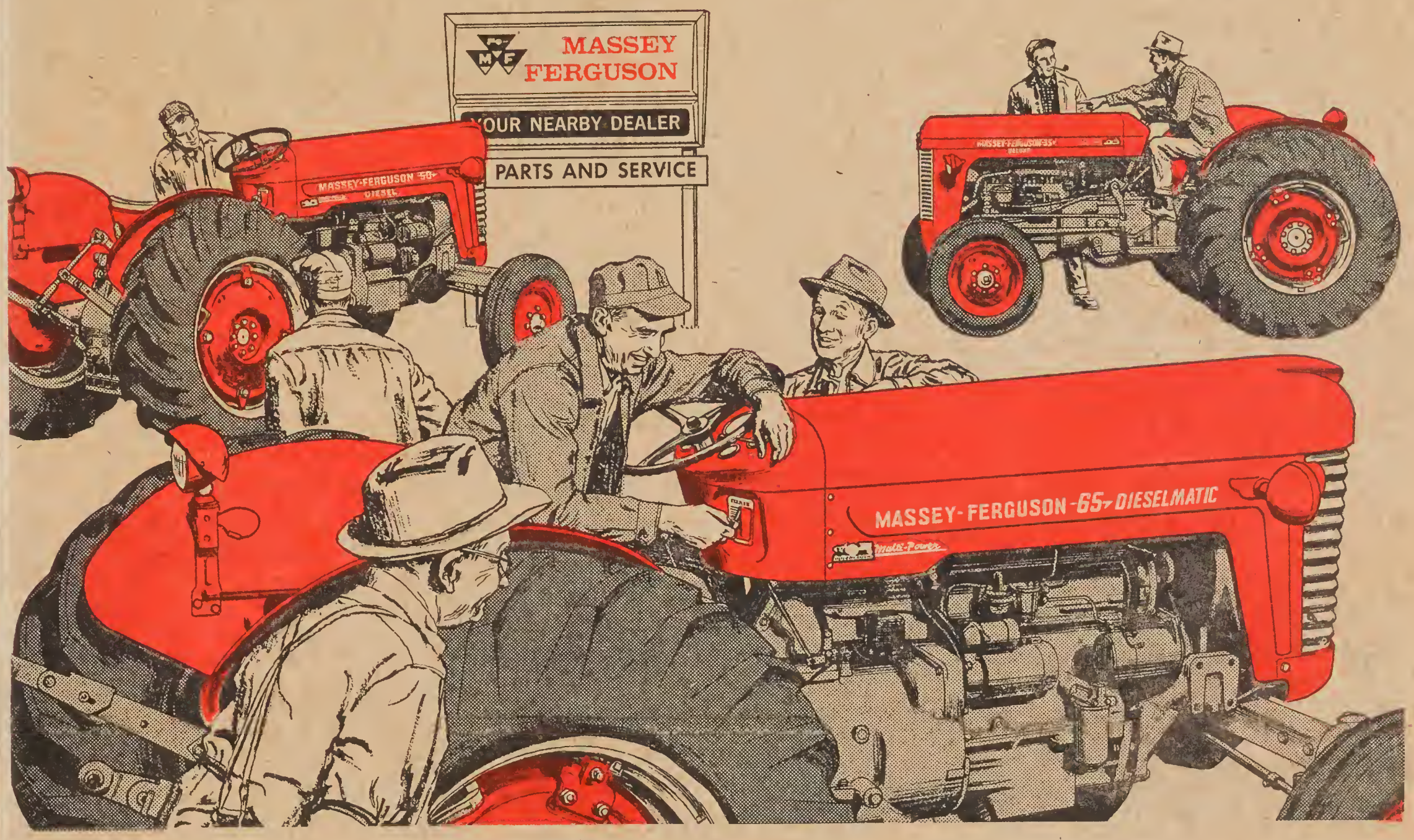
NOW...SHIFT *ON-THE-GO*...

AT THE FLIP OF A



SWITCH

Now, from the world's largest tractor maker, comes the world's simplest, most practical shift-on-the-go . . . Multi-Power transmission! Lets you gear down or speed up—right on-the-go—as easy as you switch on a light. Gives you split-second fingertip control over ground speed, without changing PTO speed. Puts you instantly into the next lower or higher gear. And does it smoothly, effortlessly, without any clashing jolt. You can flip back and forth between "HIGH" and "LOW" as often as you want. Or work continuously in any speed. There are 12 forward speeds to choose from—all different, and all in direct gear drive. Includes 8 hard-working speeds in the vital range of 0.9 to 6.5 mph. With Multi-Power, every job goes faster, fuel costs drop, and you have more time for other important tasks. More big news: Multi-Power is standard equipment on the Massey-Ferguson 65 Dieselmatic . . . the first fully automated tractor. It's got the new high-powered M-F Direct Injection diesel engine. And it comes with all power accessories at no extra cost! Multi-Power is optional on all other 3- and 4-plow Ferguson System tractors. This includes the MF 35 and MF 50—diesel and gas—and the MF 65 gasoline model. Move up to instant shifting . . . at the flip of a switch! See it. Work it. Your near-by Massey-Ferguson Dealer has it. Drop in today!



Look, Compare . . . **Massey-Ferguson** World's Largest Manufacturer of Tractors and SP Combines

Put your forage-feeding operations

John Deere *offers you*
"Assembly Line" methods to
Save Time...Cut Costs



Your farm, like any other successful business, must show annual improvement through better management if it's going to stay profitable. That's why John Deere continues to design new equipment and improve methods to put greater efficiency into forage-feeding operations.

Good Management Pays Off . . .

For peak efficiency, you must make the best use of time, labor, and equipment. How? By letting your dealer systemize your operations with John Deere capacity-matched forage equipment. What's more, he can supply service and parts when you need them. He also has a credit plan which puts modern machines on your farm this season.

Whether yours is a family-sized farm or a large, forage-growing spread, John Deere puts silage production on an assembly line from field to storage with a complete line of equipment. This line is so flexible that it can be tailored to your fields, crop conditions, acreage, and tractor power.

When your forage equipment is *all* John Deere, you can bank on double-quick service on *every* machine. Your John Deere dealer has the parts . . . his factory-trained mechanics have the experience.

And speaking of parts—Genuine John Deere parts are identical to the originals. This means they *fit* and *wear* like the originals.

Keep in Step with the Times . . .

Plan now to put your silage-making operations on an assembly line. Whether you want the whole package or prefer to buy equipment a piece at a time, the John Deere Credit Plan makes ownership easy. Down payments are made in cash or trade. Installments are arranged to coincide with your monthly or seasonal income.

These are just some of the reasons why it pays to go John Deere. See your dealer soon and put your forage feeding operations on a sound business basis!

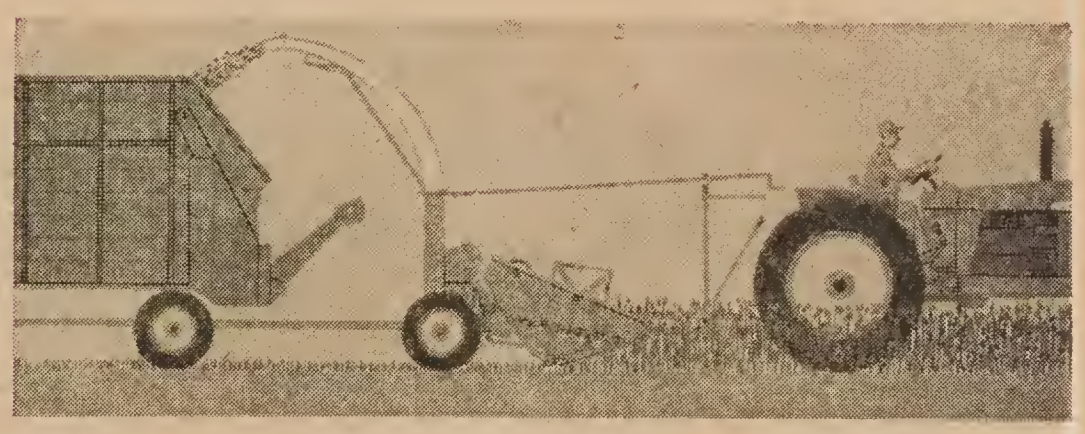
Forage Harvesters

John Deere Forage Harvesters have a feature that the majority of the competitive machines can't equal. It's the single casting which holds the flywheel cutterhead and the stationary knife. With this single-casting mounting, the knives can't get out of register. Other highlights on the low-cost and heavy-duty forage harvesters are: a wide selection of Quik-Tatch units to match every acreage and crop . . . aggressive floating feed rolls . . . heavy-duty, 6-knife cutterhead which provides a wide range of lengths of cut . . . and heavy-duty construction.

JOHN DEERE
3300 RIVER DRIVE, MOLINE, ILLINOIS

JOHN DEERE
125 YEARS

JOHN DEERE design,
dependability,
and dealers
MAKE THE DIFFERENCE



2 Forage Harvesters—Low-cost PTO model for average acreages; a heavy-duty, PTO or engine-driven model for large acreages.

on a sound business basis . . .



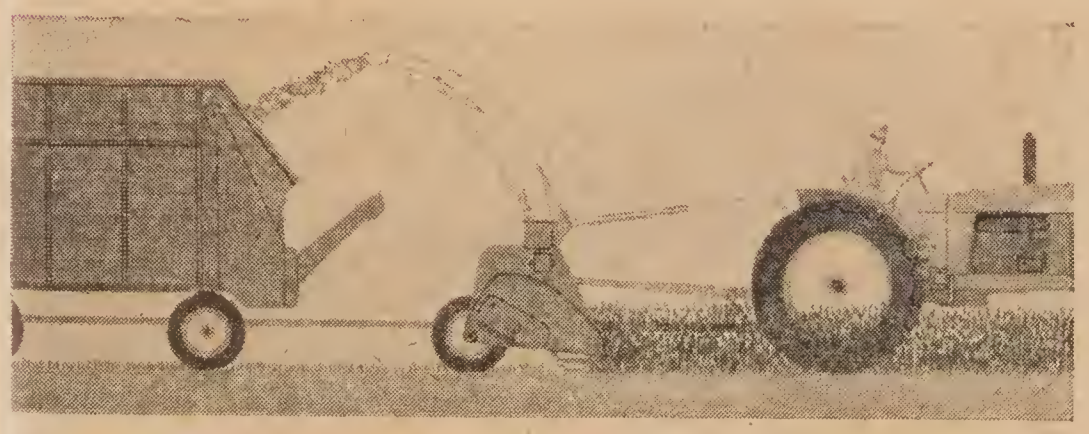
Rotary Choppers

The heart of a John Deere Rotary Chopper is a rotor equipped with two rows of curved, reversible, free-swinging knives. This rotor is very simple . . . yet so rugged that it is practically indestructible. In this one unit, the cutting, chopping, and feeding parts are the knives themselves. Material is then augered to a cutterhead which chops the crop still finer. John Deere Rotary Choppers are perfect for bringing pasture to the cows, making silage, chopping stalks and brush, making straw and cornstalk bedding, and renovating pastures.

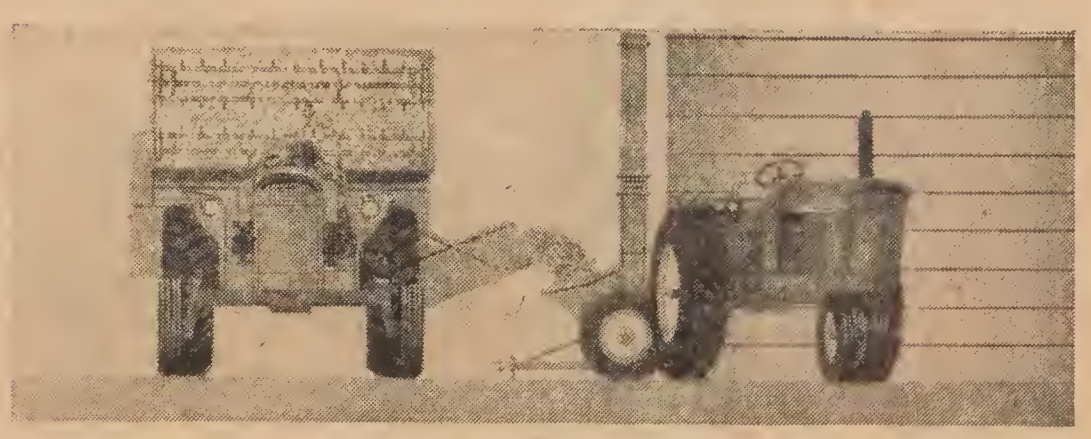


Chuck Wagons and Blowers

Drive in . . . unload . . . take off—storing silage is just that simple with a John Deere Chuck Wagon-Hopper Blower combination. Chuck Wagons unload from the side at five different speeds. The blower whisks material to the top of the highest silo as fast as the Chuck Wagon dishes it out. In minutes the wagon is empty and you're ready to roll again. Chuck Wagons unload from side or rear into the John Deere Belt-Conveyor Blower. Rotating beaters on the Chuck Wagon mix supplements into silage when feeding.



2 Rotary Choppers—5-foot model for average-acreage growers; 6-foot model for large-acreage growers and custom men.



2 Chuck Wagons—Capacities of 295 and 372 bushels with side extensions. **2 Forage Blowers**—Hopper and belt-conveyor types.

— American Agriculturist, February, 1962

Production Controls Must Follow High Price Supports

By HUGH COSLINE

WE HAVE many indications from Washington that the Administration's approach to better prices for farmers will continue to be high price supports plus strict production controls.

It has been recognized for years that we cannot continue to have high supports without production controls. But the history of government action indicates that Congress will not pass laws severe enough to control production—and it has been said that if Congress should do so, farmers will not stand for them.

Yet in view of the announced policy of the Administration, it seems to me that you as food producers should do some very careful thinking. Are you willing to go along with and observe the strict controls that will be necessary if you accept the high supports? If controls are accepted, and you decide later that you do not want them, will you be able to get rid of them? The answers to these questions are vital to your future.

In making these decisions some recent history is of interest. Dairymen have been talking about some form of production control. The word "quota" seems to arouse opposition, so now we talk in terms of "supply management."

Supports Bring Controls

The Administration is unlikely to continue high supports on manufactured dairy products unless dairymen take steps to keep production closer in line with demand. A number of production control plans have been suggested, but so far none of them has received the enthusiastic support of a majority of dairymen in the Northeast.

Before milk producers decide to support or oppose a program, they want to know the details. Many in the Northeast say they would object less to a regional plan to cover the milk shed rather than a national plan. Many, also, are thinking of quotas for fluid milk, with freedom to produce as much milk as they wish at a lower price.

Potato growers have been very unhappy over prices in recent years. Some years ago we had a bad experience with price supports on potatoes. However, a group of eastern producers have proposed acreage quotas to keep supply in line with demand, along with a marketing agreement to keep low grades off the market, **but without price supports.** A nationwide potato marketing order has also been suggested to stabilize the market and prevent low grades from being sold. Legislation would be required to make production controls a part of a marketing order.

It appears also that western potato growers are not interested in production control. The acreage was upped in Idaho and other western states in 1961, and I am told that the growers say they are going to "up" it again in 1962. So far, the majority of eastern potato growers seem to agree that if production control is to be put into effect there is no place for price supports or government payments for taking potato land out of production.

Turkey Growers in Trouble

A number of hearings have been held recently on the advisability of marketing orders on turkeys and turkey hatching eggs. It appears that the chances are good for having orders for growers to vote on. It remains to be seen how they vote.

Professor Kenneth Robinson of Cornell recently pointed out that the Administration may not get the production controls they seek. In the first place, Congress may refuse to pass the legislation they suggest; second, the necessary two-thirds of the producers affected may not vote to accept the controls. Even at best, it is unlikely that new legislation adding to the number of products that may be controlled could be passed and made effective before 1963.

In recent weeks I have talked and corresponded with many northeastern farmers in an attempt to find out just how they do feel about production controls. I'd like to summarize here as best I can the comments of farmers:

FOR

Those who favor controls have made the following comments:

"It makes no sense at all to continue to produce more of any food than consumers will buy at a reasonable price."

* * *

"The Administration is committed to high supports and controls, and eventually we are going to get them whether we want them or not. The best procedure, therefore, is to help work out a program that will be most helpful—or least harmful—to producers."

* * *

"Congress will not continue to provide money at taxpayers' expense for high supports on products which continue to pile up in government storehouses."

* * *

"The farmers' bargaining power is low. Production controls will stabilize markets and strengthen bargaining power."

* * *

"The law of supply and demand is too tough on people. Controls will take some of the risk out of farming."

* * *

"To drop supports completely would be ruinous to farmers, therefore some control is essential."

* * *

"I don't like controls, but we have gone so far down the path to socialism that we cannot retrace our steps. Controls are inevitable!"

* * *

"Government subsidizes many other segments of our economy. Farmers cannot go it alone in a regulated economy."

* * *

"Farmers are as much entitled to subsidies as other groups!"

* * *

"We have ample evidence that voluntary production controls will never work. We have a choice of living with continued surpluses which beat down prices, or submitting to some form of compulsory control of production."

AGAINST

And here are comments from those opposed to quotas or other forms of compulsory control of production:

"Production controls close the door to opportunity for a young farmer. He will no longer be permitted to make his own decisions."

* * *

"Once established, a quota is capitalized as a business cost, and its monetary value (while an advantage to men presently in the business) increases the cost to a young man who is just starting out."

* * *

"Controls do not control. Farmers always outwit them!"

* * *

"No man or group of men in Washington can be wise enough to decide what farmers ought to do."

* * *

"Decisions by government on what and how to plant will tend to be made on the basis of politics rather than economics."

* * *

"Conditions vary too much for a national production control program to be fair to producers in all areas."

* * *

"The crops that have 'enjoyed' the most government help are now those with the biggest problems!"

* * *

"While controls have been boosted as a help to the small farmer, actually they are of greatest benefit to big farmers."

* * *

"Income of many small farmers is so low that no practical level of supports will solve their income problems."

* * *

"Eventually, supply and demand will set prices. Any immediate price advantage from high supports must be paid for in the future."

Now I would like to add some thoughts of my own, which I freely acknowledge have been colored somewhat by discussions and letters. But here they are:

It is my opinion that a majority of farmers of the Northeast producing any commodity would not at the present time vote for compulsory production control. Many of them are willing to listen—and the final decision, of course, depends on the details of any proposed program. I believe, however, that there is much less firm opposition to supply management than there was five years ago.

Quota Talk Encourages Production

In the case of milk, three situations have increased production. Dairymen tell me that this talk of quotas on milk has caused them to increase the size of their herds.

Another reason for increased production is increased price supports for manufactured products. You can easily get into an argument as to how much this has affected price. Some, particularly those who favor controls, argue that while **increased** prices **encourage** production, **decreased** prices do not **discourage** production!

Third is the very unfavorable publicity which milk has had, with claims (but with very little proof) that cholesterol tends to increase heart trouble. This, of course, was fol-

(Continued on Page 39)

GUIDEPOSTS

If production controls are to be accepted by farmers, I feel that certain principles are important:

1. They must be accepted by a substantial majority of producers who plan to live with and observe them rather than using their ingenuity to get around them.

2. Controls must not be used as a means of producing an artificial scarcity in order to boost prices above a supply and demand level.

3. Farmers must not be persuaded to accept controls by making government programs so financially attractive that they can scarcely turn them down. In other words, farmers should not be bribed with their own money!

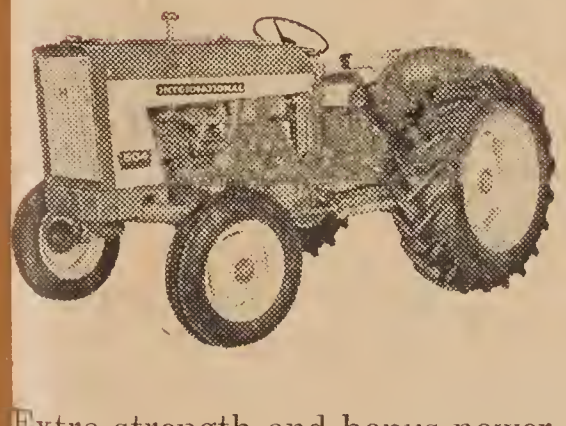
4. Farmers, through their organizations, should have a definite part in making the regulations. They should not be decided arbitrarily at the top by the USDA.

5. There should be definite provisions for terminating controls if a substantial majority of producers so desire.



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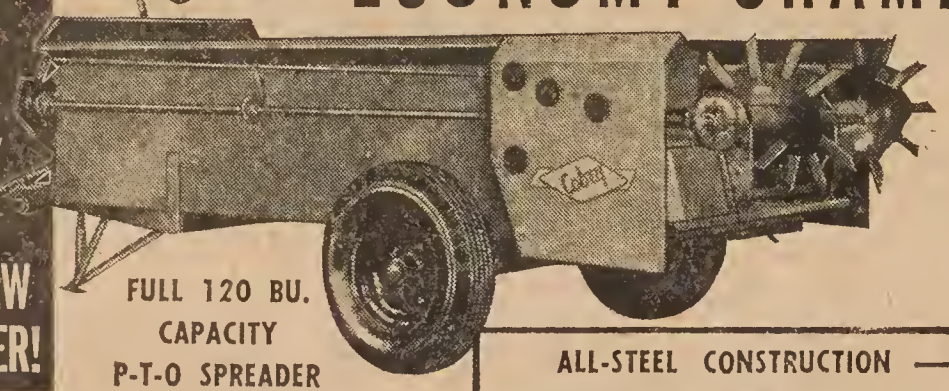
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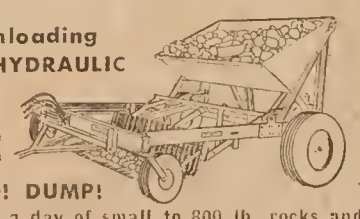
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FREE LITERATURE

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This field, planted at 100,000 corn plants per acre, illustrates one problem of thick planting.



High Population Corn

By HRANT M. YEGIAN *Assist. Prof. of Agronomy, Univ. of Mass.*

WITH THE recent availability of new, heavy duty equipment for harvesting forages, interest has been renewed on the part of farmers, county agents and others in high population corn plantings. Most farmers have equipment for harvesting forage in solid planting, but are not equipped to handle adequately silage corn planted in rows. It is, therefore, felt that if the solid stand corn could be satisfactorily harvested with the available equipment, in most cases the farmers would prefer to substitute corn for their other less productive forage crops, since it is a well-known fact that a field of corn produces more pounds of feed per man-hour of labor per acre than can be produced by any forage crop.

During the 1960 and 1961 crop growing season, experimental field corn was planted at Amherst in a solid stand as well as in rows 3 feet apart. The data collected from two seasons' field trials demonstrated that solid stand corn produces substantially more dry matter per acre than row corn—from 60 to 100 percent more.

For example, the May 16, 1960, planting (harvested October 11) yielded 12,500 pounds of dry matter per acre for row planting, and 20,100 pounds per acre for solid stand. In terms of silage at 70 percent water, the yield is 21 tons and 33½ tons respectively.

Permits Late Planting

The high productive figures will continue to be valid even in cases of late planting. The July 6, 1960 planting (harvested on October 11) produced 8,600 pounds of dry matter per acre for row planting and 14,000 pounds in solid planting.

The ease and speed of planting is a second desirable feature of solid stand. Since a corn planter is not necessary, the farmer may choose between planting by a grain drill or broadcasting by hand and then disking it in. The grain drill should be adjusted to plant the kernels at a uniform depth of 1 to 1½ inches, and at the rate of one to a maximum of two bushels per acre. This would be from 60,000 to 120,000 plants per acre. The seed should be treated with Lindane 25 percent wettable powder at the rate of 4 ounces per bushel immediately prior to planting to prevent bird damage.

The field should be sprayed with a pre-emergence herbicide soon after seeding. We have used Atrazine 80W at the rate of 2½ pounds per acre with good results. June 16 to July 16 plantings may not need herbicide to control weeds, since late seeding will outgrow the weeds, and duri that period weeds are not as much a problem as early in the spring.

Broadcasting the seed corn hand and then disking was far perior to broadcasting with a fe lizer distributor, which usually w damage and crack about one-th of the seed. The rate of seeding w this method was 2 bushels per ac

Harvesting Troubles

Although these field trials in cate the superior productivity solid stand corn, the modern harve ing machinery we tried did not erate satisfactorily with this meth of planting. The flail harvest while performing without difficul harvested only about 70 to 85 perce of the crop. This was true wheth the corn was standing or had be mowed and windrowed with a se propelled machine and left to w or had been mowed with a mowi machine, left to wilt, and later wi rowed with a side delivery rake.

The forage harvester operated ficiently in cutting the corn, but f quently became clogged. Over percent of the time was spent cleaning the machine. Also, the f age harvester could not be used harvest the corn which had be mowed and raked into a windr There may be forage harvest which will perform more satisf torily.

In addition, two other proble are involved in solid planting. cause the plants grown close gether have spindly stalks and adequate root systems, lodging w occur more readily with solid st corn. When it rains, waterladen, t heavy plants will lodge, often in chain reaction fashion felling ot plants as they go down. During rainy week of August 20 of this ye the July 6 planting of solid st corn was flattened to the grou while corn drilled on the same d in rows three feet apart remai standing.

Early Cutting Gives High Moisture

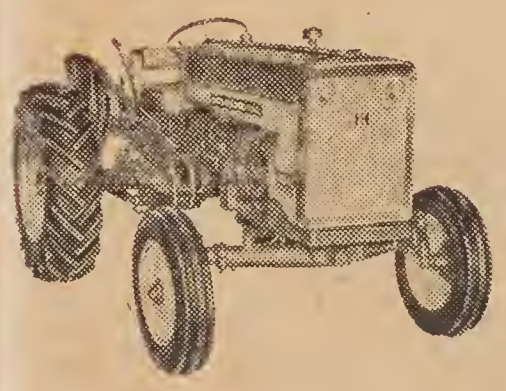
If a farmer tries to avoid problems of lodging by harvest early, then he will encounter problems of high moisture. T moisture content of corn at 7 to weeks old will be from 84 to 88 p cent. This high moisture in the c will limit its use as green feed less he is willing to (1) add ab 400 pounds of ground dry grain, h iny, or other kinds of dry feed every ton of direct-cut solid st

(Continued on Page 34)



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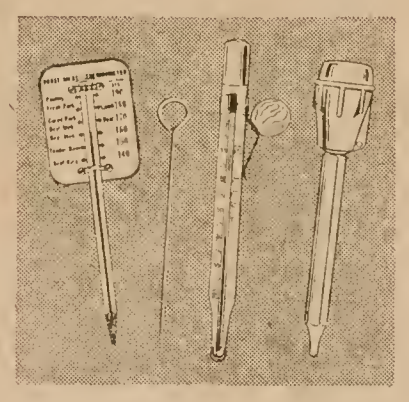
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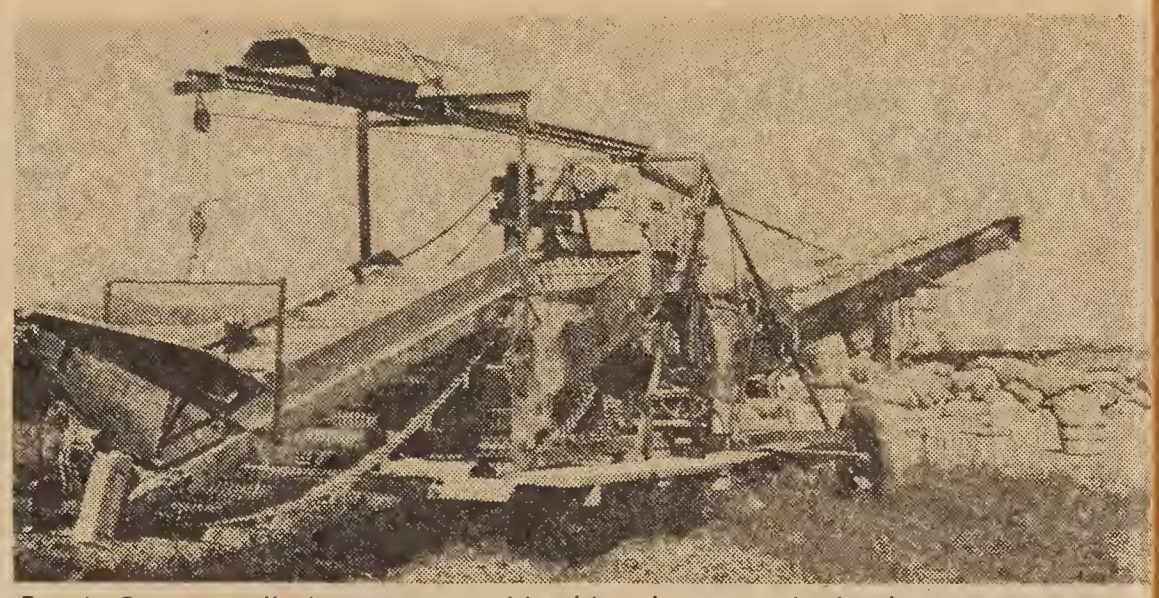
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Frank Danser piled potatoes with this elevator. It is the same type of machine used by other growers to pile potatoes in bulk storage.

Potato Growing Trends Around New Jersey

By AMOS KIRBY

New Jersey Editor of American Agriculturist

New Jersey as a potato state has definitely moved into the late-state group. It probably did it reluctantly, but with storage capacity for upwards of two million hundredweight, and with an estimated 1¼ million bags in storage at the end of the harvest season, it has become a competitor with other late potato states.

Ever since New Jersey has been growing potatoes it had, up until a few years ago, finished marketing by the middle of September. October was getting late, and only a very few were left by the first week in November.

It is rather difficult to tell what started the new trend. It might have been the varieties planted. Not too long ago the Irish Cobbler was the major variety planted. Harvesting started soon after the first of July, and the crop was moved shortly after Labor Day. Then came the Chippewa and the Katahdin. Acreage increased on the latter because they out-yielded the Cobbler; also, they matured later—and that delayed the start of harvesting by almost a month.

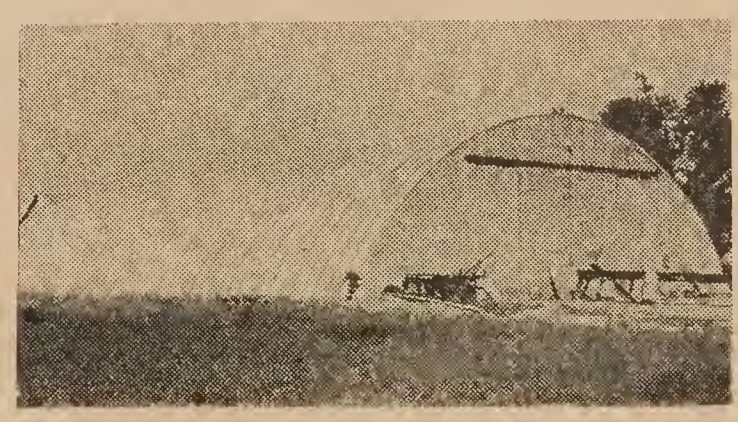
Another factor now enters the picture. The month of August is considered a month when potato consumption is at a low ebb. The weather is hot, many consumers are on vacation, and other foods compete. As harvesting became delayed until late August, digging dragged on into September, with a lot of potatoes still to be dug in October.

The next step in the shift came when growers stocked barns, sheds and cellars with potatoes—and even these did not hold the carryover. In New Jersey potatoes may be stored in open sheds or even in piles in the open field, if properly covered, until late November.

It is difficult to state who launched the permanent-type storage houses in New Jersey. Among the first might be Albert Punk at Imlaystown. His is a bank type of storage house, with a capacity in excess of 20,000 hundredweight. In the same general area Stanley Perrine was also early in the bank type storage. And William Carpenter, Jr. was first in the Salem County area, while Arthur Danser of Cranbury was one of the first to erect the quonset type of storage. There are now 10 other such houses in Central Jersey, and two in South Jersey owned by George Coombs and Charles Johnson, near Deerfield.

In between the bank and quonset types are many remodelled barns that have been insulated and made into permanent storages. One I visited was on the farm of Frank Danser, Cranbury, where upwards of 30,000 hundredweight were in either permanent or temporary storage.

(Continued on Page 40)



Quonset-type of storage house owned by Arthur Danser, Cranbury. It holds over 20,000 hundredweight, and was the first of this type to be erected in New Jersey. All storage houses have forced-air ducts under the floor to remove excess moisture.



Frank Danser, Cranbury, stored 8,000 hundredweight in a pile near the storage house. These potatoes were covered with straw, and moved before cold weather.

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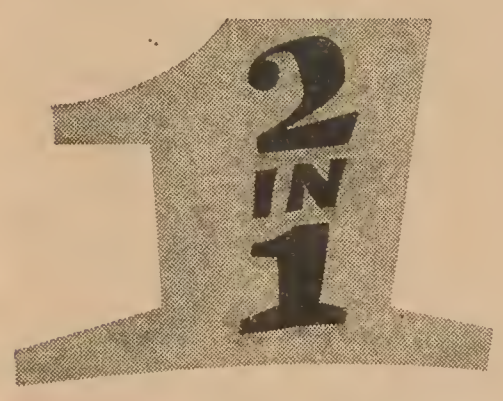
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Glenn (left) and Neil Bowen watch "Penny" clean up the last of her pelleted grain.



Feeding For The Most Milk

AT THE LAST G. L. F. annual meeting in Syracuse some prominently posted milk production records caught my eye. They stated that Clark Bowen, Wellsboro, Pennsylvania, had posted annual figures of 15,636 pounds of milk and 625 of fat on 31 cows. Glenn Bowen, same address, chalked up 16,380 pounds of milk and 629 of fat on 19 cows.

Not long afterward, I visited the Bowens and asked them about their feeding program. Clark and son Neil operate one farm setup together; Glenn runs a separate one. Equipment and manpower are often pooled, however, for the sake of efficiency and economy. Cattle feeding programs are similar on both farms, but not identical.

Feeding Schedule

Glenn's winter feeding schedule includes corn silage and grain before the morning milking, hay in mid-morning, grain and hay again at noon, corn silage and grain before milking at night, and finally another shot of hay after milking. In general, he tries to feed first cutting red clover in the morning, second cutting (if available) at noon, and poorer quality hay at night. "They have all night to work it over," Glenn says.

To supplement summer pasture in 1961, cows had millet and soybeans for green feed in the barn. Hay is usually fed twice a day all summer and two-thirds as much grain is fed as during the winter.

He used a conditioner and mow drier on the 1961 hay crop, put it all in "pretty green." Seeding mixtures are generally Pennscott clover. Vernal alfalfa, and timothy. Hay is an important item and cows get all they can eat. Silage is harvested at the early dent stage and blown into a 14 x 40 foot silo.

Grain feeding is far from underemphasized, though. Glenn grows some oats and corn; both are ground with a protein supplement to give the 14% protein ration fed in the winter at noontime. Morning and night grain is in the form of a pelleted ration carrying 16% protein. It's bulk handled and feeds down well from the bulk bin.

Cows like the pellets best if they're not broken up in shipment. Somewhere between 20-24 pounds of grain a day per cow is an average up and down the line, but one animal with a record of 23,000 pounds of milk a year has received as high as 30 pounds of feed per day. Glenn mixes a vitamin and mineral supplement with the pellets and believes it is beneficial, especially in preventing breeding problems.

Glenn believes that heavy grain feeding does **not** increase the incidence of mastitis. He does, recommend, however, that heavy feeding be done on a three-times-a-day basis rather than once a day in order to prevent cows going off feed. "We sell quite a number of animals for breeding purposes," Glenn comments. "That's one reason we push for top milk production."

Mastitis hasn't been a big problem; massaging the udder with hot cloths has been the basic treatment. The Bowens use antibiotics sparingly for treatment of acute cases.

Clark and Neil have a similar feeding pattern, but have more silo space and carry through enough corn silage so they feed it twice a day all summer as well as winter. They like to cut corn when it is pretty heavily dented, always fill Glenn's silo first and their own last. They prefer hay to silage and believe that **good** hay is **the** top roughage for dairy cows.

"Old Nit's" Home

It was in the barn owned by this branch of the Bowen family that "Old Nit" came within an eyelash of producing 300,000 pounds of milk in her lifetime. Neil believes that longevity is largely inherited, but says that he and his father don't select calves to raise on that basis. Instead they emphasize dairy type, good udders, as well as plenty of size and scale.

Clark and Neil also have a mow hay drier and plan on putting in another fan in time for the coming season. Speaking of fans, they have a three fan ventilating system in the barn that was one of the first in the area, installed 16 years ago. Not all the barn equipment is for the cows, though — an around the barn pipeline saves the backs of the men.

—Gordon Conklin



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See your IH dealer soon for full details about the new International 2001 loader. Buy now, and pocket an Early Trader's Bonus!



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World's largest manufacturer of farm equipment

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CATTLE HEALTH BULLETIN

CALF SCOURS IN YOUR HERD? THIS KILLER CAN BE LICKED!

This acute, highly infectious and deadly disease of young calves is characterized by profuse, watery, light-colored bowel movements. Several bacteria, including *Escherichia coli,* organisms of the *Salmonella* group, and a virus *(Myagawanella bovis)* have been incriminated as possible causes of infection.

Some outbreaks of scours occur (in the presence of one or more of these infective agents) as a result of the lowering of the calf's resistance. This may be due to one or more factors, such as improper disinfection of the umbilical cord at birth, failure to supply an adequate feeding of colostrum or first milk, poor diets or faulty feeding habits, deficiency of vitamins A and D in the dam's diet, sudden changes in the weather, and undue exposure to cold, drafts or unsanitary quarters.

Affected calves, weakened by the persistent scouring and dehydration, are particularly susceptible to fatal outbreaks of pneumonia. Recovered animals are sometimes unthrifty in appearance and are slow in making normal weight gains.

TREATMENT WITH SULFASTREP HELPS CUT LOSSES

The TREATMENT of scours can be effectively carried out with SULFASTREP® *Boluses. These boluses contain three hard-hitting drugs with a wide range of antibacterial activity. Two of these drugs . . .* SULFATHALIDINE® *and streptomycin . . . go to work in the gut itself where they are most needed. The third drug, sulfamethazine, gets into the bloodstream to help check infections that "spill over" into the circulatory system.* SULFASTREP *also contains kaolin to adsorb bacterial toxins and provide a protective coating for the intestinal tract to help shorten recovery time.*

DON'T LET SCOURS GET STARTED

Sanitation, warmth and proper feeding are key factors in *preventing* outbreaks. Disinfect the navel with tincture of iodine at time of birth. Make sure the calf has an adequate supply of colostrum for at least 24 hours after birth. Try to avoid overfeeding or exposure to cold, drafts and sudden temperature changes.

Give 1-2 SULFASTREP Boluses *to calves daily for 3 to 5 days after birth. Extra Vitamin A and D Mixture, a Merck product, may be fed to cows during the last three months of gestation.*

NOTE: For best results with SULFASTREP *and other Merck Animal Health Products, consult a veterinarian for diagnosis and advice before administering.*

Merck Chemical Division, Merck & Co., Inc., Rahway, New Jersey.



When You Build

TEN STEPPING STONES TO PLANNED CONSTRUCTION

By E. W. FOSS*

THE LONG evenings of winter can be wisely used in planning that new barn, remodeled kitchen, farm shop, or storage building. The adage of "an ounce of prevention being worth a pound of cure" applies most appropriately to the advance planning needed for building construction.

There are many ways of securing a new building. They vary all the way from home built construction to an all inclusive contract that winds up with a building complete with all equipment in running order. Included also are both prefabricated construction (such as silos and storage buildings) or site fabricated buildings. Advance planning can save both time and money in building construction as well as man-years of convenience in use of the building. Take plenty of time to do your planning.

Step Number One

Gather all the ideas you can for this building—perhaps put them in a scrap book under specific headings. Secure these ideas from farm magazines, building materials dealers, equipment supply houses, farm visits, and talks or correspondence with experts or specialists.

Step Number Two

Decide on:

1. Location of the structure.
2. General type of construction preferred.
3. General arrangement of interior, including built-in features in equipment.
4. Future additions or contemplated changes. and
5. Method of handling the construction.

Step Number Three

Secure accurate and detailed plans. This will vary from owner to owner. Some will prefer to hire an architect whereas others will send for standard plans such as those available from the College of Agriculture. In most cases, these standard plans must be adapted to the specific situation. The changes must be thought through most carefully. Usually it is wise to call in an experienced builder or engineer. From your scrap or idea book, incorporate the specific desired features. Balance initial cost against convenience, physical effort, and other factors which affect your cost of production and physical well being.

Step Number Four

Draw up specifications. This step, often completely or partially sidetracked, is most vital. It puts down in black and white just what you want in the building including grade and size of framing members, type of windows, hardware, electrical outlets and fixtures, roofing type and grade, make of built-in equipment and method of installation, etc. An accurate and complete set of specifications assures that you will get what you want and likewise enables the builder or contractor to figure the estimated or contract cost much more exactly.

Step Number Five

Call up builders and contractors for estimates or contracts. Then decide who is to do the job. A word here about contracts might be in order. A lump sum contract on a fixed set of plans and specifications provides both the owner and the mortgager (if needed) an exact figure to work on. On the other hand, it complicates the problem of making changes after the building is under way. Many of these changes are difficult to foresee—particularly for the beginner in building. Once a contract is broken by a needed change, particular care is needed in the authorization of changes, including differences in cost, to stay within the budget.

Many owners and builders prefer to work on an estimate of labor, plus materials. The builder does not then have to add 10% (or so) for items unforeseen in the contract, and the owner likewise does not have to pay this amount. Obviously, the owner must choose a builder whose reputation in the community is assured. Such an arrangement readily lends itself to last minute changes.

Step Number Six

Prepare the site. Usually some preparations are needed. Perhaps an old barn must be torn down. Possibly a gravel roadway is needed over wet ground to the site. In a remodeling job, furniture or fixtures must be moved out, wiring changed, plaster removed, etc. You can usually earn good wages by doing this work yourself at yours and your family's convenience.

Step Number Seven

Order materials. You may do this or if the job is under general contract this may be the contractor's job. You must not only compare cost and quality but you must also determine whether "cash and carry" is better or worse than a lumber yard that will deliver and bill at the end of the month. A real effort is needed to be sure the materials arrive when needed but are not delivered so early that they become lost, damaged, or are impeding the workmen. In many cases you must store materials under cover—a shed, old barn, or possibly a tarpaulin. Always keep them up off the ground.

Step Number Eight

Construction. In most cases the builder wants complete freedom — leave him alone as much as possible. While you are talking with the boss the workers are either loafing or unsupervised. You may need to provide temporary electric facilities as well as water. It will pay you to provide this service to the builder.

Do keep an eye on proceedings and if possible use time before 8 a.m., the noon hour, or after 4:30 to discuss your needs with the builder or contractor.

Your contract will probably call for stage payments. Portions of the contract may be advanced:

1. When foundation is complete
2. When building is erected and roofed over
3. When it is "closed in" meaning virtually complete as viewed from the outside, and,
4. Completion of construction as called for in the contract. If there is any question about any phase of the construction, it should be settled before the particular stage payment is made.

In recent years with precut and prefabricated buildings, the contract is somewhat different. There is now quite a trend to "shell homes" which enable young builders to move in and complete the interior while they live in it.

Step Number Nine

Installation of large pieces of equipment will probably be separate from the main contract. In fact many owners prefer to handle their own sub-contracting rather than hiring a general contractor. This is often broken down into:

1. Masonry work.
2. Framing and carpentry.
3. Plastering (for dwellings)
4. Electrical
5. Plumbing and heating
6. Painting and,
7. Grading. With usual farm equipment available, you can perhaps do the grading yourself — and perhaps the painting. The owner's effort in doing certain portions of the building is often called "sweat equity".

Step Number Ten

Move in, use, and enjoy your new facilities. Your first few weeks or months is like a "shake-down" cruise with a new ship. There are bound to be minor problems, but with a proper contract, guarantees on equipment and installation, and reliable builders or installers, these difficulties will soon be corrected. In many cases 10% of the purchase cost is withheld until satisfactory operation is assured.

BUILDING IDEAS

The Department of Agricultural Engineering at Cornell University has many building plans that are available to every farmer and builder in the Northeast. In addition, the Department has bulletins as follows: No. 317—Useful Facts and Figures for Dairy Barn Planning; No. 340—Milking Parlor Types; No. 341 — Basic Arrangements of Milking Parlors with Stall Barns; No. 342—Milking Parlor Heating Methods.

Single copies of these bulletins are free to anyone. New York State residents may obtain them from their county agents; persons in other states should write to Agricultural Engineering Extension, Riley-Robb Hall, Cornell University, Ithaca, N. Y.

The following plan lists are also free, but there is a small charge for most plans ordered from them:

Plan List	Description
851-D	Description and price list of plans for dairy barns, milk houses and milking parlors.
851-M	Description and price list of plans for farm shops, machinery storages and garages.
851-P	Description and price list of plans for poultry houses and equipment.
851-T	Description and price list of plans for wood trussed rafters.

*Cornell Department of Agricultural Engineering

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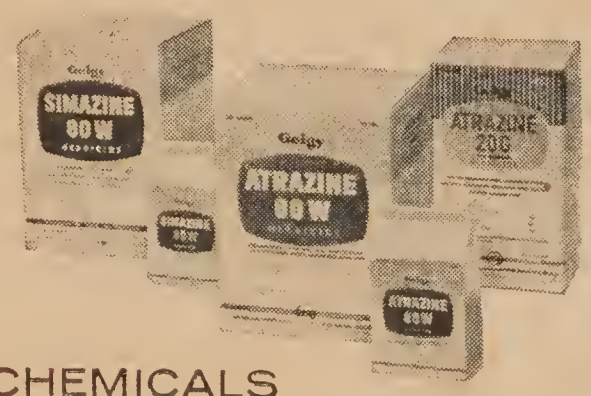


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Personal Farm Experience



C. T. Johnson of Wayland, New York.

Feeds Grass Silage

WE HAVE 135 head of livestock, including 80 milkers, on the 475 acres we operate. Dry cows and young stock are loose housed in a pole barn; the milking herd is stabled in stanchions.

During the last two winter feeding seasons, the milkers were fed almost entirely on grass silage. Last winter we fed them first cutting trefoil hay once a week, about 15 bales weighing 60 pounds apiece. We fed growing heifers all grass silage, too, and found it fattened them up like eels. Some second cutting is always baled for feeding calves.

This winter we will continue feeding all grass silage, stored in our two 20' x 50' concrete stave silos. They are filled with a trefoil-timothy-clover mixture, with a little alfalfa from some fields. One silo contains only second cutting.

In 1961, we started "haying" on June 3, finished first cutting on July 12. It was later than usual because of wet weather, but at least we know that everything we put in was green.

All grass is mowed and swathed, then chopped almost immediately. We used to mow and then rake with a side delivery, but a few stony fields cured us of that — a chopper just can't digest those raked-up hardheads. Our chopper has a standard pick-up head; the flail chopper we've tried cuts grass too long for easy handling by our silo unloader.

Our labor force, in addition to myself, includes one full time hired man and my two sons, Norman and Wayne, 15 and 11 years old. The boys can drive trucks all day to follow the chopper, but they couldn't wrestle 60 pound bales of hay behind a baler very long.

Efficient use of labor available isn't the only reason why we went to all silage for our roughage. We didn't have enough barn room to store baled hay and, after some figuring on everything to be considered, decided that silage was the answer. Cows produce well on it; our high elevation and rather heavy soils are well suited to producing it; weather isn't as much a problem as with making hay.—*C. T. Johnson, Wayland, N. Y.*

Cuts Hay Early

I'm a firm believer in early haying—finished putting in 2,500 bales of first cutting on June 10 one year. The secret of good dairy farming is good hay; I feed corn silage and hay the year 'round, but believe hay is even more important than silage.

A heat drier helps with early haying; mine is used as a batch drier by blowing air into an old truck trailer. The trailer is the type used in a regular tractor trailer rig, enclosed all around with metal sides, roof, and doors. One of these normally costs around $500, but they're hard to come by because of competition for them from construction outfits that use them for storage at construction sites.

I tore out part of the floor boards so air could blow down through baled hay stacked on the floor. These boards were so tough that a jack was required to tear them loose.

During the rest of the year, when haying is not being done, such a trailer makes good storage for fertilizer or other supplies. They can be used as granaries if the floor is left in, or a slatted floor could be covered with metal to hold grain.

Hay is mowed and conditioned, then baling begins when hay moisture level is around 40% to 45%. This saves most of the leaves — and green color. The heat drier is used only a short period during the summer, but the result is fed on this place for 12 months of the year.

Our last DHIC average on 25 cows was 12,600 pounds of milk. One cow that we call Lady made a record of 19,280 pounds of milk in 278 days. Good hay is partly responsible for that production. — *Maynard Lloyd, Clinton, N. Y.*

Two Units Per Man

We milk between 100 and 120 cows the year around. We have a combine milker with 537 feet of pyrex glass pipe. We installed this system along



You've got to walk...

If your tractor doesn't have the pulling power to start a load —how can it ever run? The big advantage in a tractor today isn't horsepower at the engine—it's pulling power at the drawbar. A powerful engine alone isn't enough.

Here, an Oliver 1800 walks away with one of the biggest loads in farming—6 bottoms in a dense cover of alfalfa. And, without wheel spin! What's the secret? Balance. Balance of engine horsepower with basic weight—a stout 6-cylinder engine matched with more than 4 tons of live, bui weight. (Incidentally, Oliver has been building 6-cyli tractor engines for 26 years.)

Oliver doesn't give you paper performance—but proo performance. The Oliver 1800 gasoline Row Crop® set one—but two national records during official tests: an time high in fuel economy and a drawbar pull of 10 pounds, up to 51% more than any other tractor in its c

with our 800 gallon vacuum tank in August 1956.

We were well pleased with the performance of the machine the first four years that it was in operation. Last spring it began to give us trouble by machines falling off. One of the faults was too much vacuum causing inflations to open and close too much, letting the machine fall off.

Some cows milk in 2½ to 3 minutes, others 11 or 12 minutes, and all times in between. We use 8 units, 4 men, now milk 114 cows in one hour 25 minutes average (it varies 10 minutes on some milkings). One man cannot handle more than two units with any system.

I think the greatest cause of cows holding milk is the machines being left on too long. Of course, this leads to mastitis in two ways: milk left in the udder and injury to udder by machine action after milk is taken out of udder.—*A. J. Malnati, Ashley Falls, Mass.*

Getting Started

I've climbed the "agricultural ladder" from hired man to renter to a partnership and finally became owner of a 52 cow farm. Maybe I should say "we," because my wife has done her part. Any young man deciding to start farming should be sure his wife agrees to the step.

For a young person without capital, one way to get started in farming is to do a top job as a hired man. Farm experience of some kind is almost a must, though.

Some people try to begin farming by working in the shop and also on the farm. It **can** be done that way, but it's sure a tough row to hoe.

The father-son partnership can be the simplest way for a younger man to move into a going business — it all depends on how the family gets along. I believe that such arrangements work best where each person has primary responsibility for certain things—one the cows, one the crops, etc. Everyone has to feel needed and have a place in the sun or he won't take an interest in his job. Farming is confining at best and some intangible rewards are as important as cash.

One of the things that has helped us most in management has been the farm and home management program sponsored by our county agents. We've learned to make haste slowly when it comes to major management decisions, to try out new things on a trial basis at first. But the help of our agents has been mighty valuable when considering changes. — *Robert Knight, Clinton, New York.*

Ration Grazing

Our 40 cows are pastured with a system whereby a fence is moved across the pasture, each move just far enough so the herd will clean up the strip that day. It takes one man 10 to 15 minutes per-day to move the fence, usually done twice a day. Now and then, we have even moved it four or five times a day, only two feet at a time.

The electric fence used is smooth telephone wire, safer and easier to drag along than barbed wire. Posts are the "pigtail" type with rubber hose for insulation; they are spaced about 45 feet apart. The fence controller is a plug-in type at the build ings, rather than one operated by a battery.

The pastured area last year was 23 acres; cows also had hay available at all times. We've used this system of ration grazing for 10 years and believe it allows us to carry more animal units per acre. There is far less trampling of feed, bloat is completely controlled, and land is more efficiently used.

On meadows, we usually topdress with fertilizer two or three times a year, a total of 450-500 pounds per acre of either 0-15-30 or 0-25-25. We include in the fertilizer an insecticide — either dieldrin or heptachlor —at one pound actual toxicant per acre to control spittlebug and alfalfa weevil. This last fall, it was heptachlor applied in September.

Our standard seeding mixture is Vernal alfalfa, ladino clover, and bromegrass or timothy. — *Merrill Zimmerman, Norristown, Pa.*

Likes Corn

In our particular situation, we like corn silage best for winter feeding. We used grass silage for summer feeding for 10 years, but now have gone to green chop.

Our silos are generally well drained and suited to corn. High tonnage and ease of handling (both going in and coming out) are pluses for this type of silage. Our silo unloader handles corn much better than grass. There isn't any wilting to be done, as with grass, and no juice to run out of the silo.

Our corn crop in 1961 was so good that we filled our silos from 20 fewer acres than in 1960. We filled two 14 x 40's, two 12 x 30's, one 18 x 40 and a pit silo that measures 18 x 30 x 10 feet. Young cattle are fed from the horizontal silo.

Milkers are fed silage twice a day, right after each milking. Cows are milked in a parlor and silage is put in the manger while they are in the holding area, so it's ready when they return to their stanchions. — *Lisle Hopkins, Bath, N. Y.*



before you can run

The 1800 diesel's pull-power was still greater—11,040 pounds.

Then, when the 1800 was put on the plow, in tight Iowa silt loam, it sprinted through 3.38 acres 7 inches deep in one hour flat—with no times-out for turns on the 80-rod field. And, fuel cost was only 27¾¢ per acre (based on the national average gasoline cost of 17.9¢ per gallon to the farmer).

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News and Views From N. Y. and Pa.

NJVGA Award — Donald E. Martin (15) Chambersburg, Pa. won top honors with his tomato crop (average yield 23.57 tons per acre) in the canning crops contest sponsored by the National Canners Association and conducted by the National Junior Vegetable Growers Association.



Donald Martin

Don was judged on horticultural practices, community activities and the records he submitted. He won out over 348 other young people from 20 states who completed projects in the production and marketing of canning crops with the cooperation of their vocational agriculture teachers, 4-H and FFA leaders.

Victor Winner—James Capron, (17), Victor, N. Y. was named Northeast NJVGA award winner in the canning crops production and marketing contest. James grew 13 acres of snap beans and 11 acres of sweet corn.

Other winners include William Benedict, Stanley, who was named State Canning Crops Champion for his project of 14 acres of cabbage.

Winter Meeting — The 36th combined annual meeting of the New York State Horticultural Society and the Empire State Potato Club was held January 16-18 in Rochester. Allen Kline, former president of the AFBF, spoke to a joint meeting on January 17 on "Today and Tomorrow, U. S. A."

Nearly 100 exhibitors showing the latest in farm equipment were represented at the Trade Show, and a record turnout of Long Island and upstate New York potato growers discussed marketing problems. Among the speakers on the program were Daniel M. Dalrymple, assistant commissioner of Agriculture and Markets, Dr. Brian How of Cornell University, Dr. Elmer Ewing and Dr. Ora Smith of Cornell, and Dr. Richard Claycombe of Grand Forks, North Dakota.

Boost Farm Products — It was announced by Commissioner Don J. Wickham that beginning January 15 the Department of Agriculture and Markets will receive public service poster space on New York City Transit Authority buses, to help promote the State's farm products. The first product featured will be Long Island ducklings, followed by potatoes, eggs, and apples.

Meat Inspection — Dr. Grant S. Kaley, Director of the Division of Animal Industry in New York State, says that the effective date of the meat inspection law will be July 1, 1962, rather than January 1. This law prohibits the sale of any meats from uninspected carcasses.

Agricultural Society—At its annual meeting on January 10, the N.Y.S. Agricultural Society adopted resolutions calling for funds for research in all segments of agriculture; retention of control of the New York State Barge Canal and the watersheds supporting it; and for unity among farm organizations.

Officers were reelected: Thomas E. Milliman, Ithaca, president; William B. Giddings, Baldwinsville, vice president: Spencer G. Duncan, Albany, secretary; and Joseph F. Firth, Catskill, treasurer.

Affiliate — The New York Farm Bureau has announced final approval of by-laws for its affiliated marketing organization, the New York Farm Bureau Marketing Cooperative, Inc. The new marketing organization is a member of the American Agricultural Marketing Association, and will provide the opportunity for coordination of marketing activities on a nation-wide basis.

The board of directors will be William E. Bensley, Springville; Robert Greig, Red Hook; Harold Hawley, Weedsport; George Humphreys, New Hartford; Amherst Davis, Mt. Sinai; Walter Moore, Cazenovia; and Earl Harding, Albion.

Keynote Speaker — Mr. Charles B. Shuman, president of the AFBF, spoke on the Farm Bureau's program to assist farmers in increasing their bargaining power in his address at the annual meeting of the New York Canning Crop Growers Cooperative at Batavia on January 25. Connor Cuddeback of Phelps, vice president of the cooperative, presided at the morning session, and Donald Nesbitt, Albion, president, at the afternoon session.

Spud Growers — A yield of 768 bushels per acre on eight acres brought the Pennsylvania State champion potato grower award to a father-and-son partnership, Ray A. and Richard M. Briggs, Nescopeck, Pa. The variety was Pontiac, and the contest was limited to growers of five or more acres of potatoes.

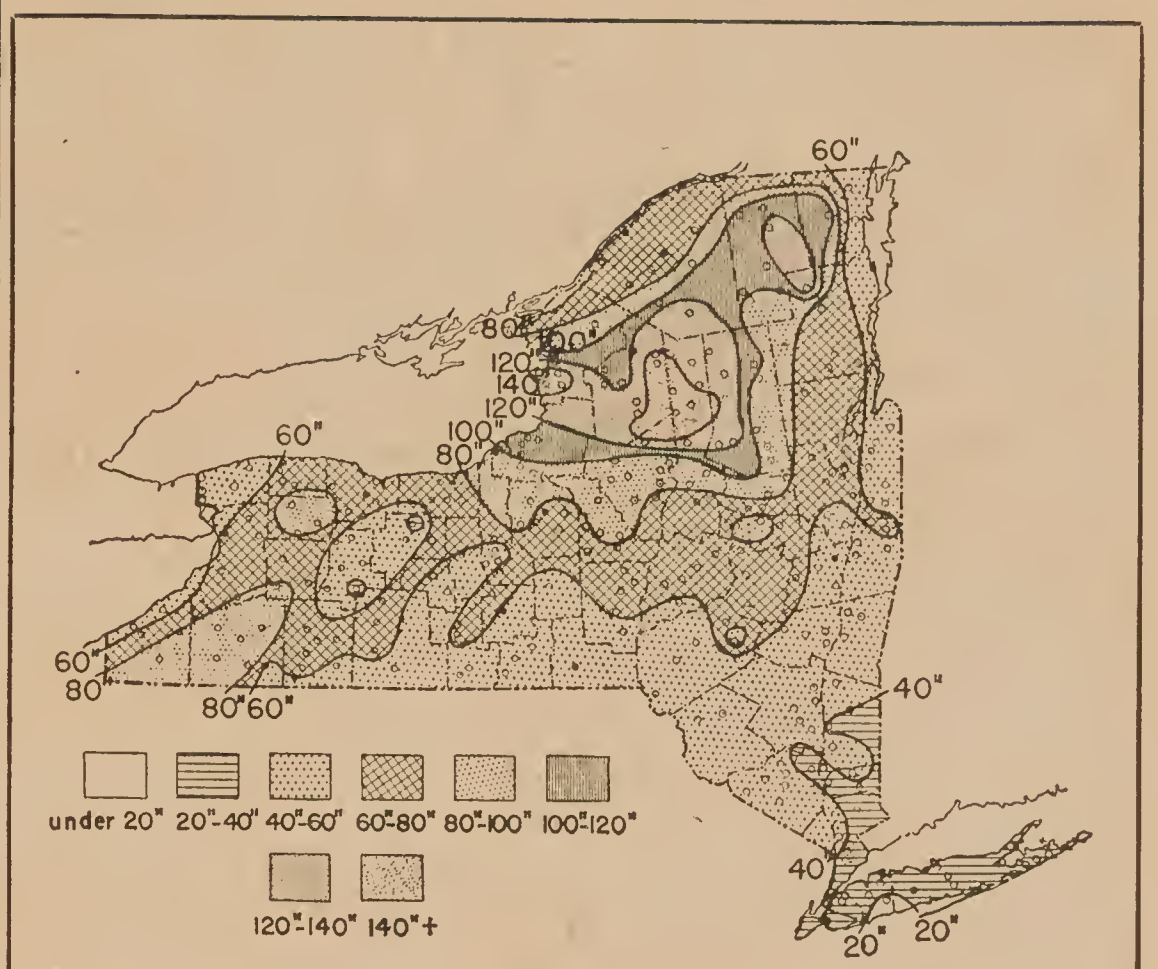
This is the seventh state championship for the Briggs family, and it is the 39th consecutive year that they have attained an average yield of 400 or more bushels to a measured acre. The first member of the family to qualify was Ray E. Briggs, father of Ray A. and grandfather of Richard, in 1922.

Second honors went to Carl Becker, Northampton, with a yield of 746 bushels of Katahdins; third high was James Shadle, Hegens, a member of the FFA, with 726 bushels, also of Katahdins. James Hertzler, also in FFA, won fourth place with 711 bushels, and in fifth place was Wilbert Dunbar, Palmerton, who grew 633 bushels of Katahdins.

Mutual Meets — Delegates to the annual meeting of the Mutual Federation of Independent Cooperatives on January 17 at Syracuse elected the following officers: Dr. Kenneth A. Shaul, Cobleskill, N. Y., president; John Spofford, Dolgeville, N. Y., vice president (replacing Adolphe Walkley, Conesus, N. Y.); Clarence Bolliver, Lowville, N. Y., secretary; Warren E. Davy, Greene, N. Y., treasurer.

In addition to the officers, these men will be members of the organization's executive committee for the coming year: Edwin Ferber, Callicoon, N. Y.; Paul Thompson, Millheim, Pa.; and Fenton Murphy, Ulster, Pa.

Reports by President Shaul and General Manager Dan Carey included recommendations for dairy farmers to give serious consideration to some form of supply management for milk.



What's Your Mean Annual Snowfall?

Depends on where you live.

In the "snow belt" east of Lake Ontario, you can expect 140 inches or more! In southeastern New York, 20 to 40 inches.

To Cornell meteorologists who compiled the map, the "mean" is the mid-point of many years' records. To others, any amount of snow is just plain mean!

For everybody, official forecasts of amount of snow and other weather factors come to you on WEATHER ROUNDUP at 6:25 and 7:15 A. M., 12:15 and 6:15 P. M. over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Plattsburgh	WEAV-FM	99.9 mc.
Troy-Albany-Schenectady	WFLY-FM	92.3 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Plattsburgh	WEAV	960 kc.
Binghamton	WKOP	1290 kc.	Poughkeepsie	WKIP	1450 kc.
Boonville	WBRV	900 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Remsen-Utica	WREM	1480 kc.
Elmira	WENY	1230 kc.	Salamanca	WGGO	1590 kc.
Hornell	WWHG	1320 kc.	Sayre, Pa.	WATS	960 kc.
Ithaca	WTKO	1470 kc.	Schenectady	WGY	810 kc.
Jamestown	WJTN	1240 kc.	Scranton, Pa.	WEJL	630 kc.
Newark	WACK	1420 kc.	Syracuse	WHEN	620 kc.
New York	WQXR	1560 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Walton	WDLA	1270 kc.
Olean	WHDL	1450 kc.			

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EARLY ORDERING

FOR SEVERAL years we have ordered and taken delivery on our fertilizer in December or January. The dollars saved are important and it is nice to have it on hand when the time comes to use it. We just never seem to have extra time at planting to be handling fertilizer.

Another angle on this early take concerns the income tax situation. We can level our net income a little by buying fertilizer in December at the end of a good year or by waiting until January if the year has been bad. When waiting until January we are, of course, anticipating the next year will be better. Always the optimist!

Seed corn and oats and grass seed are usually ordered in December and occasionally paid for then. Regardless of whether payment is then or at delivery time we like the idea of planning our needs for the year ahead and getting supplies ordered and on hand early. But it is getting tougher and tougher to plan ahead.

Government—not weather—is the big uncertainty.

How does one order seed and fertilizer in December when he does not yet know what the government program will be next spring—nor whether it will be optional or mandatory—or what the penalties will be if one decides to run his own business regardless? Well, right or wrong, we have ordered just as we would if there were no interference from the Messrs. Kennedy, Freeman, et al. We are, however, stalling on machinery buying until we are sure we can farm our usual acreage.

We are firmly convinced that we can do a better job of deciding what to grow and produce on our far than any outside agency. We furth believe that our overhead costs w rise sharply on the remaining acr age if we put 30 to 50 percent of ou crop land into some form of produ tion control program. Most impo tant of all—we don't **want** somethin for nothing.

It would seem, if the governmen is going to play such an importan role in agriculture, that they shoul come out well beforehand with a fu and complete statement of their pr gram, including their "clubbing" ta tic of breaking the grain mark just ahead of sign-up time.

BETTER TRAINING

It was really gratifying to ta with son Bruce over the holida and to learn how much addition training he will have when he star farming than did some of his pr decessors. This is especially true agricultural engineering fields.

Instruction in welding, electricit motors, and a study of machin should prepare him to cope wit some of the physical problems h will encounter. Likewise, he shoul have a good understanding of th principles of economics by the tim he gets ready to back his judgmen with his own money.

Nothing, to my mind, will su plant a good thorough education a a preparation for meeting the pro lems of tomorrow's farmers. I sure they will have a good life an a good future if they are well pr pared.

RAILROAD TIES

Our little community has bee served by about every conceivabl means of transportation at one tim or another. Besides the roads and privately owned airport, there hav been three canals (one at a time, course), a trolley (Rochester to Sy acuse), and three railroads. The tro ley gave up back in the 30's. Th Lehigh Valley Railroad ceased to about 10 years ago. This was onl a single track running from Pen sylvania to Lake Ontario. The We Shore (part of the N. Y. Centr System) took up one set of track and then gave up altogether three four years ago. The main line of th Central is now down from four two tracks. Need I say local ta payers mourn the loss of the railroads and the trolley?

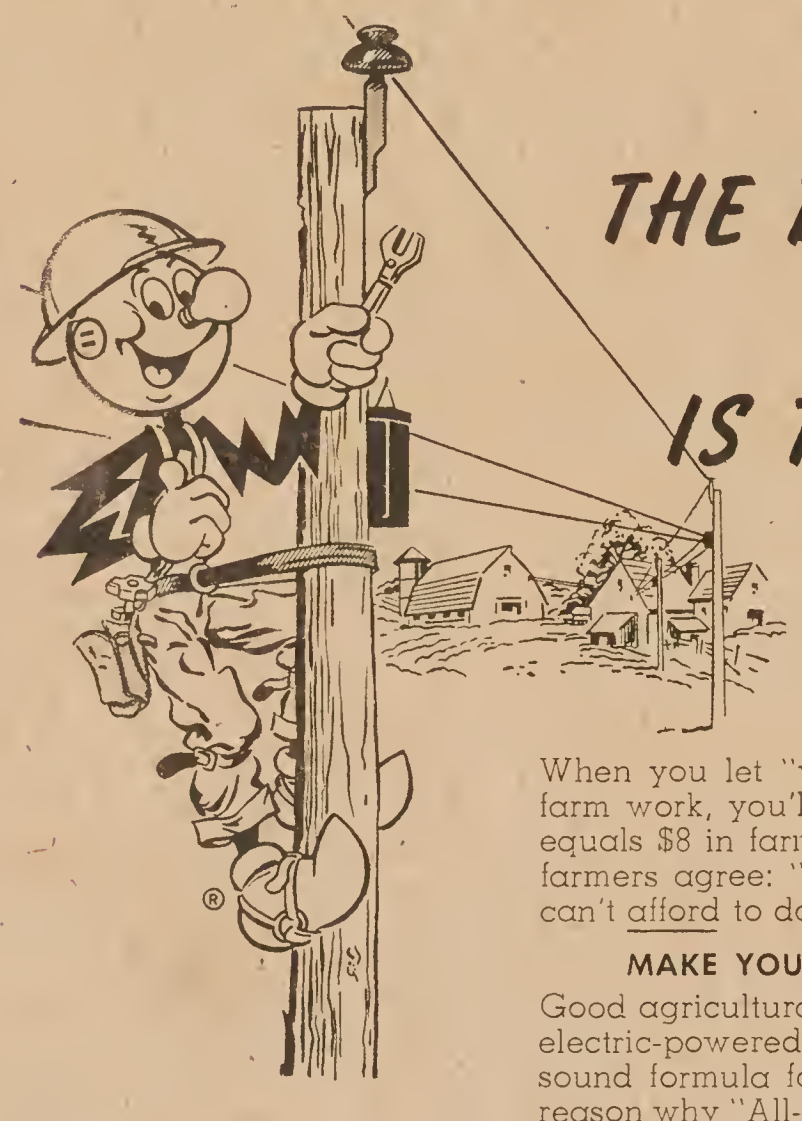
Ties Used

As the various lines were aba doned, the track was taken up an the best of the ties taken. The re were left for nearby residents on first-come first-served basis. It almost unbelievable the uses which some of these ties have be put.

Fence posts, of course—but al posts to support drive floors and h mows. Tie bridges across sm streams and ditches are as comm as can be; we must have a half d en or more of these. Some have bu up loading ramps and platfor from ties and gravel. Many ba yards and lanes have literally be paved by a layer or two of ties c ered by gravel. Our lane had t wet spots that always got pre bad in winter and spring. Two yea ago we put in a layer of ties c ered with gravel and have had most no trouble from mudho since.

Many corn cribs and grain bi are up high and dry on a layer two of ties. As a base for the rou wire cribs the ties have one imp

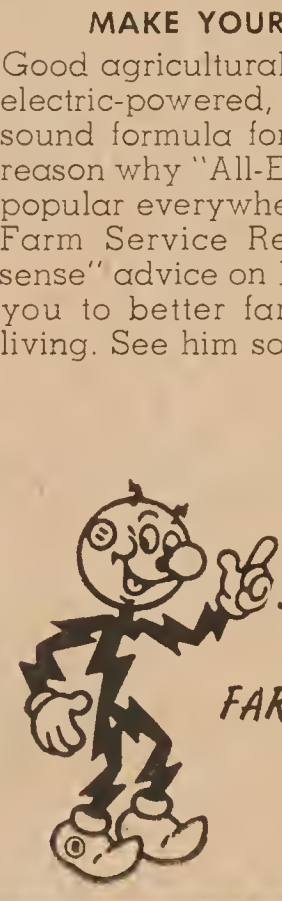
(Continued on Page 29)



THE BEST FARM HELP TO HIRE... IS THE KIND THAT COMES BY WIRE

When you let "wired hands" help you with the farm work, you'll find that 8¢ worth of electricity equals $8 in farm wages! Small wonder so many farmers agree: "If I can do the job electrically, I can't afford to do it by hand"

MAKE YOUR FARM "ALL-ELECTRIC"...
Good agricultural practices plus maximum use of electric-powered, labor-saving devices — that's a sound formula for bigger farm profits. That's the reason why "All-Electric" farming is growing more popular everywhere — why you should talk to our Farm Service Representative for "dollars and sense" advice on how low cost electricity can help you to better farm profits — and happier farm living. See him soon...



SIGN OF BETTER FARMING...



NEW YORK STATE ELECTRIC & GAS CORPORATION

What's the most important split-second in tractor driving work today?



...the split-second it takes to power shift!

ONLY FORD SELECT-O-SPEED SHIFTS UP OR DOWN TO ANY SPEED ON THE GO!







Big results with little effort . . . that's what you get with Ford's power shift and power engaged PTO. You can synchronize PTO speed, ground speed and engine rpm perfectly to meet changing conditions...only with Ford.

PRODUCTS OF Ford MOTOR COMPANY

Time counts in your favor with Ford! On-the-go shifting ends all stopping to change gears. Not only do you save time by taking only a split-second to shift, but more efficient time use is possible hour after hour by convenient, effortless power shiftings.

Choose the speed you need . . . from 10 forward and two in reverse. Match engine power and speed to varying crop and field conditions.

Less lever movement between speeds! No other tractor has such a simple, straight line shift pattern. You merely move the selector lever directly to the exact speed you desire. Hydraulic power does the actual shifting.

What it means to the driver: Precision power . . . applied as you need it! You can shift exactly *when* you need to, up or down, to any speed. Shift one speed at a time or even skip-shift when you need extra low or extra high speeds quickly. No more puzzling shift patterns and stops for gears to mesh. With Ford it's as easy to shift as to stay in too low a gear!

What power shift means to the pocketbook: Since it's easy to work at most efficient fuel-saving speeds at all times, you'll use less fuel . . . have less engine wear. And these most efficient speeds are the kind that mean least-wear hours on your tractor. Ford is always in solid gear drive, there's no fuel-wasting slippage, no torque converter. More engine power is directed to the wheels as pull power. No more lugging down with excessive engine wear and strain. Instead, Ford's power shift means less operating cost, less engine maintenance, more work in less time . . . plus longer tractor life.

Only Ford has power shift . . . and you can get it on row crop or all purpose models with your choice of fuel options and power sizes from 2-3 to 5-plow.



Only one PTO power engages on the go!... Independently

Handy T-handle on the dash . . . where it belongs. Actually, this PTO power shifts since it is part of the Select-O-Speed transmission. Smooth PTO power in both 540 and 1000 rpm on 2-3 plow and 3-4 plow Fords. And you get both the two-speed plus a dual range feature on the big 6000 tractors. Power shift PTO is available only from Ford. Six ground speeds of 4 mph or less provide proper speed for the most exacting PTO jobs.



Easiest way to hay is with Ford equipment.

"FARM-EASE" tractor line

Built-in "Farm-Ease"—Here's where Ford really shines . . . with auto driving ease! Easiest to get on and off. Controls placed where you'd like to find them. There's more rest in a Ford ride. Power steering standard on row crops. Power shift available only on Ford tractors . . . it's standard, along with power brakes and power steering on the big 5-plow Ford 6000.

Matched farm power . . . All purpose power to tackle section-size or average size fields . . . row crop power for delicate, precise requirements in crowded plantings. Pick from 5-plow, 4-plow, 3-4 plow, 2-3 plow, even 1-row offset multi-purpose tractors.

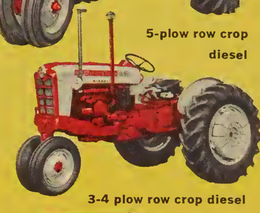
Systemized to save—Complete hydraulics, built right in . . . part of 3-point hitch system matched to America's largest selection of pick-up-and-go tools. Either ground speed or dual speed PTO's. Your choice of 4- or 5-speed transmissions or the world's only power shift for farm tractors.

Tools to match—Plow, harrow, plant, cultivate and harvest your crops—including nearly every crop—with Ford equipment. See your Ford tractor dealer about models and literature covering just about any machine in sizes suited to you.

Farm tailored credit terms. Don't wait for the crop to come in. Take delivery now and pay-as-you-farm. As little as 1/5 down and up to 4 crop years to pay.



5-plow row crop diesel



3-4 plow row crop diesel



3-4 plow all purpose gasoline



2-3 plow row crop diesel



2-3 plow row crop diesel



2-3 plow all purpose gasoline

SEE YOUR NEARBY FORD TRACTOR AND IMPLEMENT DEALER



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And to squeeze fuel costs down to half-size ...PUT A FORD DIESEL IN YOUR FUTURE!



Famous Red Tiger diesel engines come in sizes to fit every Ford tractor series.

Save by the hour—New Ford diesel owners are often amazed at the low running cost . . . those who switched from gasoline usually report fuel bills chopped right in half! Every hour you drive a new Ford diesel means more savings! Diesel fuel costs less, and you use less of it . . . mere pennies per acre. Some owners say they plow all day without refueling.

Priced with the lowest! You needn't pay a big premium to get a Ford diesel. You'll find many Ford diesel models priced so low they even compete with gasoline models of other makes. It costs less to move up from gasoline to diesel power in the Ford line than with any other make. Ford engineering and vast mass production experience makes it possible to pass this savings on to you. It's no wonder that more farmers buy Ford diesels than any other make.

More models than ever—Pick the Ford tractor that's best for you and tell your dealer you want it with a diesel engine. Every way you turn a Ford diesel saves you money . . . try one soon!



Fordson Majors have won more world plowing championships than any other tractor!



Handiest outfit yet: Lowest priced diesel and hottest selling new loader made!

Why are the Fordsons world famous?

Sample-drive the lowest cost per hp FORDSON SUPER MAJOR DIESEL

Savings start with the price on this 4-plow diesel and continue right on through. Easily engaged differential lock saves time, minimizes slippage in difficult spots. Disc brakes give longer life on half the foot pressure. Hydraulic flow control lets you tailor draft response to soil conditions. Flip a lever for draft control or implement position control. Duo-linkage lets you switch from Category I to II. Lift linkage is adjustable for heavy or light draft loads. Yes, and there's more built-in structural strength in the Super Major and more modern style and comfort, too!

Sample-drive the lowest fuel burning FORDSON DEXTA DIESEL

Owners claim they can plow an hour on one gallon of fuel. Now the Dexta 2-3 plow diesel is improved with wider speed ranges and greater speed range overlap. Hydraulic flow control just like on the Super Major. More power on the PTO shaft increases work potential. Both Fordsons are fully equipped with built-in hydraulics, 3-point hitch, 6-speed transmission, lights, Proof-Meter and much more. Live PTO available. Priced way, way down . . . even competing with the same size gasoline tractors of other makes. Try a money-saving, fuel-scrimping Fordson soon!

See your nearby Ford tractor and implement dealer

FORD

FOR TOMORROW'S FEATURES TODAY

Management Is Key To Mastitis Control

By Christian J. Haller*

ASK ANY dairyman with a big outfit about the major disease problems in his herd—mastitis and sterility will be the prompt answer. If you ask why, he will certainly answer, "The problem of getting efficient help." The "herdsman" who should be experienced in fast milking, checking udders, keeping breeding records, cleaning and sanitizing the complicated milk line and tank, etc. is a field hand impounded from thc tractor whcn the last man in chargc of the herd gave up in disgust.



Christian J. Haller

We certainly are not taking advantage of our rapidly improving knowledge of the value of efficient milking. The man under the cow should be trained as a technician and given a new status on the farm. The county agents cannot reach these men who are expected to work in the field when not actually milking or doing barn chores. Pay incentives are not common, even though the milking machine and the cows are the crux of the whole dairy farming operation. Fourteen hours a day, seven days a week, is not apt to attract a young man with intelligence and ambition, no matter what the pay.

The only "system" of mastitis control that works is good management and proper milking. The principles of milking management are known, but too often only by a busy owner, unable to do the milking himself and unable to communicate with the milker without hearing the threat of, "You do it then, I quit."

Secondly, mastitis is not a simple disease of the udder, with one cause and one cure. A few infected quarters not yet showing abnormal milk can explode to three-fourths of the milking quarters with just a few apparently minor faults developing in the milking operation. Ridding the herd of this infection, even with culture of the milk and very efficient treatment, is impossible without first correcting the fault in management. It is time we recognized mastitis as a **herd** disease.

Consider the common bacterial causes of mastitis. Str. Agalactia infection can now be regarded as an infectious disease of the udder. It can be controlled and eliminated by judicious culling of cows with badly scarred udders, and by treatment of mildly affected quarters — always with the basic sound management that will not leave a bruised teat and quarter especially susceptible to reinfection. Hem. Staph is another common offender, chiefly affecting middle aged, high producing cows; careful milking is better than treatment as an effective control. A clean, dry environment will control other mastitis-causing bacteria.

The adaptation of the Modified Whiteside Test to the checking of bulk milk for mastitis will cause a lot of milk now considered fit for shipment to be excluded. Dairymen with problem mastitis herds are now able to compete with good herds with only a little loss of conscience.

The University of Vermont has run taste tests that definitely show the increased palatability of mastitis-free milk. Thus, shipping mastitic milk penalizes not only the production of the cows affected, but the conscientious dairyman who withholds such milk, the bottler, and eventually the consumer who can and does reject the milk because of poor taste.

The crux of the problem is the **milking operation.** Let's consider the investment in barns, cows, and equipment -- then make sure that milking management receives the attention it deserves, by both owner and hired hand.

*Chairman, Mastitis Committee of the New York State Veterinary Medical Society.

GAYWAY FARM NOTES

(Continued from Page 24)

tant edge over a slab of concrete—they can be moved when the crib is moved! Ties fitted tightly together can be used as a crib floor, but we prefer the smoother plank floor.

Some of my friends tell me that a tie helps keep a car from being driven through the other end of the garage!

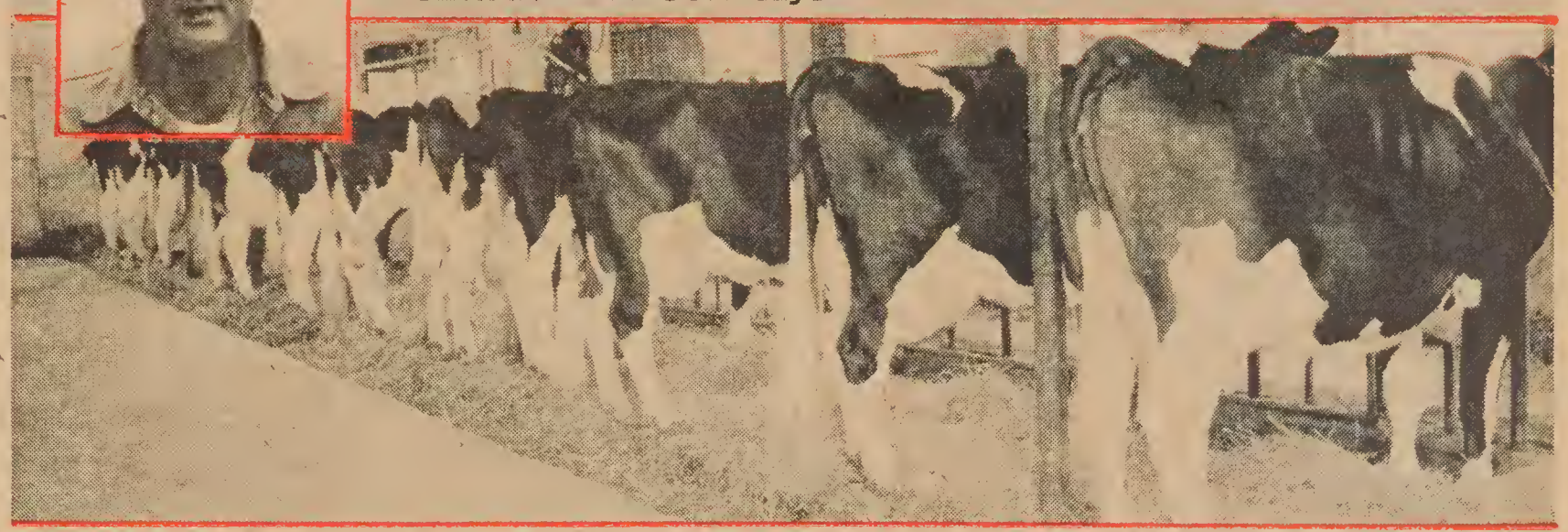
After using old ties in all these various ways from a pile we have had behind the barn, it came as a shock the other week when we ran out. We were putting a base under a new wire crib. The pile of ties has been added to and used from for years, but never before have we run out. It's like receiving notice from the bank that you are overdrawn. They can be easily obtained, so we have no problem, but I got to thinking what it would be like to farm without ties. For us, if that time ever comes, it will be a much worse adjustment than learning how to do without baling wire.

from Waterloo, New York ★



"WHEN YOU USE ABS, YOU CAN'T USE A POOR BULL"

SEWARD DADSON says



His 10-Year Herd Improvement Records Bear This Out

1950-51 (without ABS Daughters)	15 cows	11,894 lbs. Milk	430 lbs. B.F.
1960-61 (with ABS Daughters)	30 cows	14,193 lbs. Milk	555 lbs. B.F.
Increase, with ABS Daughters good feeding and management	**+15 cows**	**+2,299 lbs. Milk**	**+125 lbs. B.F.**



"American Breeders Service is certainly doing a job for me," says Seward Dadson, Waterloo, New York. "My production is up practically 2,300 pounds of milk per cow and I am very satisfied with my ABS Daughters in every way.

"I certainly like the way ABS selects Proved Sires," he continued. "I am a Bull Committeeman and have the opportunity to look them over and vote. ABS finds such good bulls, it's hard to vote 'no.' When you use ABS, you can't use a poor bull!"

Why not use the ABS Proved Sire Breeding Program in your herd? You get the service of an outstanding sire *every time.* Your cows stand the best chance of settling with ABS Frozen Semen — national 60-90 day non-returns average 72 percent. And you get the know-how of an organization that's bred more than 11 million cows since 1941. Call your local, authorized ABS Distributor for service today.

GIVE YOUR HERD A PROVED SIRE FUTURE

AMERICAN BREEDERS SERVICE

325 North Wells Street • Chicago 10, Illinois

ABS EVERY SIRE PROVED GREAT

ALASKA SUMMER TOUR

SEATTLE WORLD'S FAIR **MT. RAINIER** **BANFF** **LAKE LOUISE**

ALASKAN CRUISE
JULY 13 -- AUGUST 5

ONCE AGAIN we offer you the opportunity to go with American Agriculturist to Alaska. If you missed out on our 1960 Alaska Cruise because you didn't make your reservation in time, here is your chance to go with us this summer on a marvelous trip to this northern wonderland! The dates are July 13 to August 5 — more than three weeks of glorious fun, majestic scenery, happy companionship, and absolutely carefree traveling. On our way home from Alaska, we'll have two full days and three nights in Seattle for the World's Fair.

Traveling through the Canadian Rockies on our way to the West Coast, we'll visit Banff, gorgeous Lake Louise, the Valley of the Ten Peaks (with an optional excursion to the Columbia Ice Fields for those who wish), and Emerald Lake. The rugged grandeur of this area is unsurpassed in any section of the Rockies.

Next will come Vancouver, where we will board our Alaska Cruise ship, the S. S. Princess Louise, our home for seven unforgettable days as we cruise the calm blue waters of the "Inside Passage" to Alaska — a thousand-mile water lane through breathtaking natural splendor.

As we cruise northward to the Land of the Midnight Sun, we will experience the utmost in pleasurable, memorable travel. Past your steamer chair will flow snow-capped peaks that poke holes in the sky; gleaming glaciers, rocky cliffs, inviting islands, primitive, unspoiled country; little coastal towns and picturesque fishing fleets. The very names of the places we see thrill us —Ketchikan; Juneau, capital of Alaska; the magnificent Mendenhall Glacier; Skagway, where the Trail of '98 begins.

The time will fly by all too fast, but when our cruise is over, we will still have other wonderful experiences ahead of us, a visit to the typically English city of Victoria, B. C., and two full days and three nights in Seattle for the 1962 World's Fair. While in Seattle we will stay



Luxurious Chateau Lake Louise where we'll spend enchanted days and nights. Thrilling scenery, cosmopolitan comfort, and delicious meals have made it famous the world over.

at the Olympic Hotel, which has the finest accommodations in the city. Our tour agents, the Travel Service Bureau of Needham, Mass., arranged for these accommodations more than a year ago. After leaving Seattle, we'll take an excursion to Rainier National Park, where we will be in a fairyland of flower-bordered trails and virgin evergreen forests, with the glittering snow-capped peak of mighty Mt. Rainier towering 14,408 feet above us.

This brief account of where we will go does not begin to tell you all the wonders we will see and the fun we will have. If you have ever gone on one of our American Agriculturist tours, you know how enjoyable they are, and how perfectly planned. If this is your first time, you'll find it the trip of a lifetime; a carefree, restful vacation filled with delightful surprises and good times in company with the nicest folks in the world. You'll have absolutely no travel worries; no tickets or luggage to bother with; no tips to pay—nothing to do but enjoy every interesting moment of the time we are gone.

The cost of this enchanting tour is reasonable, and the "all-expense" ticket includes everything except such personal expenses as souvenirs and laundry. It covers all transportation, first class hotel accommodations; delicious meals; an expert



A striking sight in the beautiful city of Victoria, B. C., is Totem Pole Park, not far from the hotel where our party will stay overnight.

tour conductor; baggage transfers, all scheduled sightseeing, and all tips.

Our printed, illustrated Alaska Tour itinerary will give you further details and the exact cost of the tour from the point of departure nearest you. To get a copy of it, fill out the coupon on this page and send it to E. R. Eastman, President, AMERICAN AGRICULTURIST, Box 367-A, Ithaca, N. Y. In the itinerary you will find a reservation blank which you may use to send in your reservation, with a deposit of $100 per person. All deposits and other payments will be refunded if you find later you cannot go.

Now here is a word to the wise: We shall have to limit the size of our



Mighty Mt. Rainier's 14,408 foot peak is crowned with eternal snows. We will have a thrilling visit to Rainier National Park, the greatest scenic attraction in the Pacific Northwest.

Alaska Tour party to 100 persons, and we already have a number of reservations from those who were unable to get space last time. This means that if you want to take this wonderful tour, you must not delay in sending in your reservation.

Decide today to visit Alaska and the World's Fair with American Agriculturist this summer.

E. R. Eastman, President
American Agriculturist
Box 367-A, Ithaca, New York

Please send me, without obligation on my part a copy of your Alaska Summer Tour itinerary (July 13-Aug. 5).

Name _____

Address _____

Please write plainly

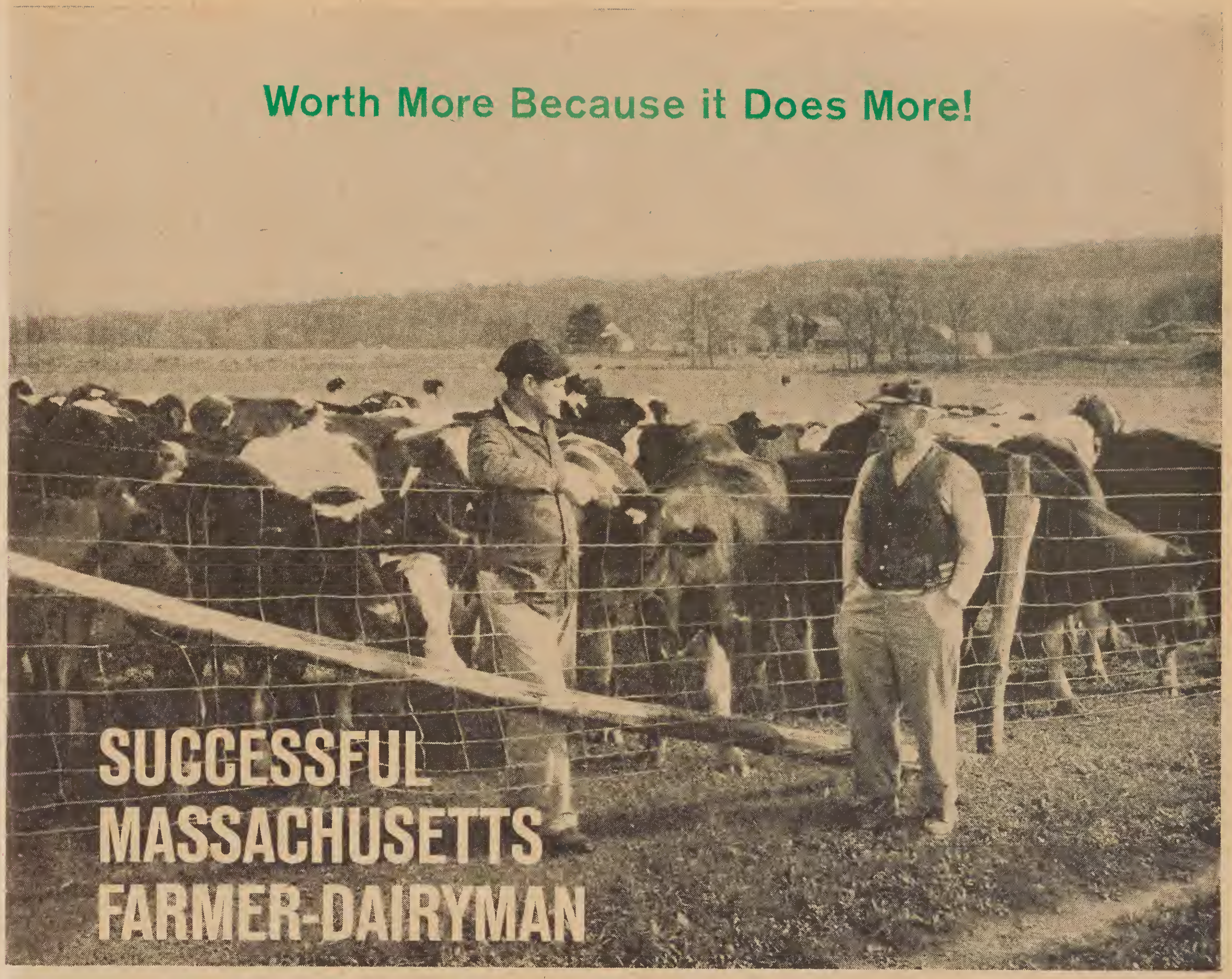
Celebrated Lake Louise is one of the most beautiful of all mountain lakes in the Canadian Rockies, set like a diamond amid towering peaks.





The picturesque city of Juneau, capital of Alaska, will be one of our ports of call during our cruise of the "Inside Passage"—a thousand-mile water lane through breathtaking natural splendor.

Worth More Because it Does More!



used ARMOUR FERTILIZERS in 1924... still does in 1962!

Mr. **Frank Yazwinski** started a small dairy and tobacco farm near Deerfield, Massachusetts, back in 1924. He used Armour fertilizers from the beginning.

Since 1924, Mr. Yazwinski and four of his sons have built their farm into a modern, 250-acre corn, potato and dairy operation producing more than two tons of milk daily. Today, as in 1924, they depend on Armour fertilizers. In fact, they now use Armour Vertagreen exclusively!

That's the way it is with Vertagreen farmers. They like it, and they stay with it!

Here's what **Joe Waltman** of *Lycoming County, Pennsylvania,* says about Vertagreen: "After comparing Vertagreen with several other brands of fertilizer over a number of years, Vertagreen is best by test." The Waltman & Sons Farm has won the county 5 Acre Corn Contest for three straight years with average yields of over 150 bushels of shelled corn per acre!

R. M. Boys put Armour Vertagreen to the test on his 500-acre farm in *Glasgow, Delaware,* comparing it with a regular fertilizer. The result: Vertagreen produced 17½ more bushels of corn per acre! No wonder Mr. Boys says, "Vertagreen for me on any crop! It always gives me the best results."

This year, join the thousands of experienced farmers who use Armour Vertagreen. Your increased profits will prove that this is a fertilizer that's "Worth More Because It Does More." See your friendly Armour Agent soon.



ARMOUR AGRICULTURAL CHEMICAL COMPANY

Vertagreen, complete premium fertilizer / Mixed fertilizers, bagged and bulk / Ammonium Nitrate / Nitrogen Solutions / Anhydrous Ammonia / Ammonium Phosphate / Triple Superphosphate & Phosphate Rock



BIGGEST BAG OF NITROGEN YOU CAN BUY

Inside this bag are 45 potent pounds of plant food. All 45 are pure nitrogen. All-set-to-*grow* nitrogen. The stuff that returns (let's be conservative) $2 for every dollar you invest —in *just one season*. Have you ever heard of a better investment?

This is AERO® Urea 45% nitrogen. It gets down to business right away, yet feeds through till harvest, pumping up yields all the way. That's AERO Urea nitrogen. Packed in the red, white and green bag, it's carefully made by American Cyanamid Company for easy spreading. It *flows*—as a fertilizer should!

Plow it down with crop residues. Put it under corn. Or, vegetables. *Spread* it on grain. Pastures. Forage crops. *Crops* need nitrogen like growing boys need food. *You* need AERO Urea forty-five per cent nitrogen . . . higher-analysis-than-any-other-solid nitrogen. Never settle for less. Why lug all those extra bags?

The bag in our picture is a 100-lb. bag. *Most* AERO Urea is sold in 80-lb. bags. Either one is the biggest bag of nitrogen in its class . . . and the best buy.

American Cyanamid Company, Agricultural Div., Princeton, N. J.
®AERO is American Cyanamid Company's trademark for its urea fertilizer.

CYANAMID
AERO UREA
45% NITROGEN FERTILIZER

CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

Although not primarily a vegetable crop insect, the author wants to call to the attention of farmers this bug new to our area—the Northern Corn Rootworm. It did damage to field corn in the Northeast in 1961; is potentially troublesome where corn follows corn.



Vegetable Insect Control

By ARTHUR MUKA*

OF THE MANY important aspects of vegetable production, some of the fastest changes are occurring in the science of insect control. Each year growers find new materials approved, new methods of application, and new formulations available.

Of increasing importance is the safe and legal use of pesticide materials. To avoid seizure of contaminated crops, growers should use only the materials which are approved for use on each crop. The amount of material used, as well as the interval between last application and harvest, are also very important. Before any chemical is used, be sure and check the label.


Arthur Muka

Listed below are the major vegetable crops grown in the Northeast, the insect pests most commonly encountered, and the insecticides recommended by the New York State College of Agriculture.

Beans

Bean beetles, leafhoppers and **aphids**—Use Sevin, ethion, Trithion or parathion when the insects are first seen. Rotenone, rotenone and DDT, or malathion are suggested for small plantings or the home garden.

On lima beans research results show that the **tarnished plant bug** reduces pod set, which causes substantial yield reduction. Higher concentrations of parathion, Sevin or Trithion will control it.

Mites—In the western part of New York State, and on Long Island, mites are often a problem. Use Kelthane or Demeton (Systox) on established populations, or parathion in a preventive schedule before mite injury shows.

Seed corn maggot — Plant only seed treated with both an insecticide and a fungicide.

Carrots

Leafhoppers — Use DDT or Sevin.
Carrot rust fly — Use aldrin in the soil as a preplant treatment or drench with aldrin or parathion, or use parathion foliage sprays.

Cole Crops

Cabbage root maggot—Use aldrin, chlordane, dieldrin or lindane. Best to treat seedbed and use insecticide in transplant water on all plants set in April and May. Radish is very susceptible to maggot attack all season, and each planting needs protection.

Flea beetles, imported cabbage worm, cabbage looper, and **aphids** — Before heading use endrin or Thiodan; where aphids are present Thiodan is first choice. After heading use parathion, Phosdrin or Dibrom. If aphids become a problem after heading, use demeton, TEPP or Phosdrin. A major problem is control of the looper. Endrin gave some indications of looper resistance in 1961 on Long Island. Two new experimental materials not yet approved for use are Bayer 44646 and Zectran. These are the most promising materials since endrin for looper control.

Tarnished plant bug — Use DDT.
Aphids—Use demeton, parathion or Diazinon.

Cucurbits

Striped and **spotted cucumber beetle,** and **squash bugs** — Use lindane, dieldrin, parathion, malathion, or rotenone.

Squash vine borer — Use methoxychlor at seven day intervals, starting in late June.

Aphids —Use Thiodan.

Lettuce

The **six-spotted leafhopper** is the vector of the lettuce yellows disease. A regular spray schedule starting when the plants are small is necessary to keep the infection rate low. Use DDT, parathion, malathion, Perthane, or Sevin. All lettuce fields should be disced immediately after harvest to avoid a build-up of leafhoppers on the yellowed plants not harvested.

For **tarnished plant bug** — Use DDT, parathion or Sevin at increased dosages.

Onions

Onion maggot — this insect has become resistant to the chlorinated hydrocarbon insecticides such as aldrin, dieldrin and heptachlor. To control the pest (and smut), use liquid Diazinon with formaldehyde as a drench at planting, or granules containing ethion, VC-13 or Trithion, all with thiram, into the row at planting. Less effective but still used are seed treatments, and the Orange County method of mixing insecticide and fungicide dust in the seeder box. Wettable powders of Diazinon or VC-13 may be used in the seed treatment. Diazinon dust is added in the Orange County method. VC-13 is not approved for use on green, spring, or bunching onions.

Onion thrips — In hot dry weather this insect builds up fast. Use parathion, malathion, dieldrin or DDT. Use only parathion or malathion on green or bunching onions.

Peas

Pea aphids — Use parathion, Diazinon, malathion or phosphamidon.

Pea weevil — Use parathion.

Peppers

Aphids — Use Thiodan on the parathion-resistant **green peach aphid.** Where other aphid species are present, parathion or malathion will still be effective.

(Continued on Page 35)

**Extension Entomologist, Cornell University, Ithaca, N. Y.*

LOOK AT ALL THE EXTRAS

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Zinc phosphate coating resists corrosion—prevents spreading of rust from scratches and bonds paint so it won't chip. Grille and headlight trim are rust-free, anodized aluminum.

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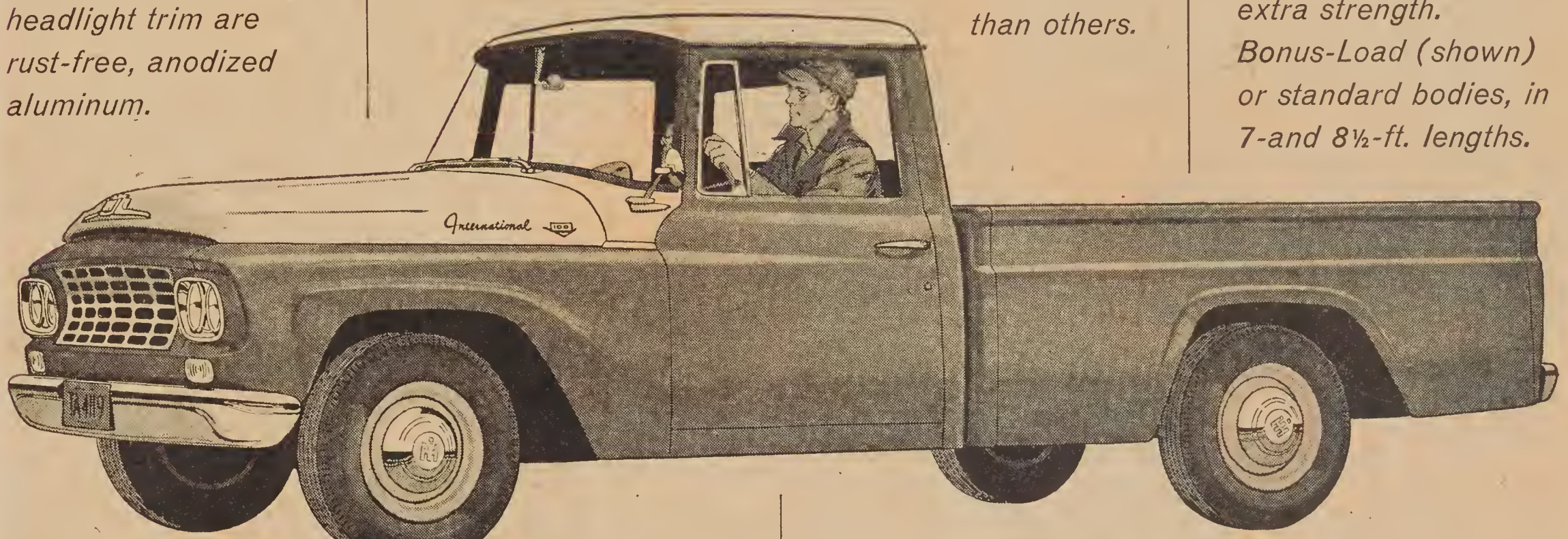
Gas tank is outside of cab, not in it. All-'round visibility. No obstructions in doorways. Bonded brake linings. Fume-free cab with high cowl intake vent.

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Living-room comfort—widest seat of any pickup. Tough nylon seat covering. Suspended pedals; no holes in insulated floor to admit dust or cold. Double-sealed, full-sized doors. Step 2½-in. lower than others.

GRAIN-TIGHT BOX

Steel box won't rot out, has ribbed bed for easy load-handling. Center hinge on tailgate for extra strength. Bonus-Load (shown) or standard bodies, in 7-and 8½-ft. lengths.



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Only in an INTERNATIONAL pickup do you get an exclusive truck V-8 engine as standard—for abundant power teamed with exceptional economy.

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No change for change's sake—functionally designed to help you do your work better and ride easier. Attractive design you'll like for years.

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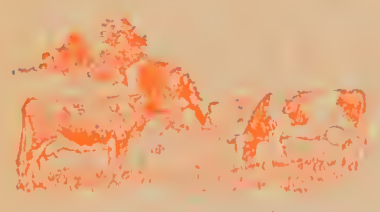
Choice of box-section frame with independent torsion-bar front suspension, or channel frame with I-beam axle and leaf springs. Positive-action steering.

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Fuel tank, muffler, steering, driveline are all above the frame line for better clearance over broken ground.

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Are Big Cows The Answer?

ONE WAY for dairymen to save and make money is putting the feed through efficient cows. The real efficiency of a dairy cow can be expressed as the percentage of digested feed nutrients which appears in the milk pail.

Other conditions being equal, larger cows will produce more total milk than smaller cows. A practical question is whether, on an average, enough more yield is realized per unit increase in weight, other things being equal, to increase profits in dairying.

To answer this, a recent study by Drs. Erb and Ashworth at Washington State was made with 215 normal lactation records of 154 cows in their University herd. The average yield of 4% fat-corrected milk (FMC) favored the Holsteins with 12,917 lbs. as compared with 8,914 lbs. for Jerseys and 9,688 lbs. for Guernseys. However, the **yield per 1,000 lbs. of cow** was 9,700 lbs. for Guernseys, 9,660 lbs. for Jerseys, and 9,560 for Holsteins.

These averages point to a very important factor which needs careful consideration. **Individual cows of the same breed vary more in size than the average differences between breeds.**

The crucial question is whether we are actually going to increase dairy merit of any breed by merely increasing size. Average total yield will undoubtedly increase, but will this be enough to give a greater profit after the extra feed for maintenance and the extra feed for growing to the larger size is accounted for?

When only size was considered, there was an average increase of 825 lbs. of FCM for each 100 lb. increase in size of the cows. When differences due to breed of cow were removed, this average dropped to 570 lbs.

When the influence of age of the cow was also removed, there **was only a 238 lb. increase for each 100 lb. increase in weight.** Milk fat change on the same basis was only 9 lbs. It is very questionable that this amount of increase is enough, on an average, for a larger cow to be more profitable than a smaller cow of the same breed.

Conclusions:

1. Too much attention to increasing size in dairy cows may well result in decreased efficiency.

2. In a given herd the smaller cow may well be the most profitable. (It is suggested that if a 1,100 lb. cow produces 11,000 lbs. of milk and 440 lbs. of milk fat, then a 1,600 lb. cow in the same herd should produce about 12,500 lbs. of milk and 500 lbs. of milk fat to be as profitable, or 300 lbs. of milk with 4% milk fat more for each 100 lbs. greater in size.

3. Studies of this sort should always consider breed, age, and weight of cow.

4. Some sires may be proven and retained for extensive use in favor of other bulls because of superior transmittance of higher production when, in reality, they are only transmitting increased size, and thus the dairy merit of their daughters may well be inferior to smaller daughters of other bulls. — *Stanley N. Gaunt, Extension Dairyman, University of Massachusetts*

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FOR BUCKET OR PIPELINE MILKERS



LESS WORK FOR THE VACUUM SYSTEM
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From everywhere — men who milk cows report that this Vacuum Saver Shell improves the performance of their milking machine if you are using an inflation with a smaller bore, this Vacuum Saver Shell will improve the milking action of your inflations and greatly lighten the load on your entire vacuum system.

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HIGH POPULATION CORN

(Continued from Page 12)

corn of this age; (2) mow and wilt it first to bring the moisture down to 70-72 percent before putting it into the silo.

In this case, however, there is the problem of picking the wilted material up from the ground. As yet we have not been able to do this satisfactorily. It must also be noted that corn harvested at this early stage of growth is not of equal feeding value as regular corn silage with fully developed ears.

When one considers the problems involved in harvesting solid stand corn, one wonders if it would not be better, for the present at least, to plant in drill rows, using around ½ bushel of seed per acre. This will produce about 30,000 to 40,000 plants.

Solid plantings of corn will produce tremendous quantities of green material which could be very useful during the late summer let down in pasture forage, if we can find a satisfactory way of harvesting.

EGG ASSEMBLY LINE

(Continued from Page 6)

about three dollars per bird; remember that practically all the work, except for cage assembly, was hired.

Speaking of hired help, Bob says, "We have 40 Guernsey milkers just across the road from this poultry house. There seems to be lots of hired help available for this side of the road, but darned little for the cow side."

Bob's daughters, Judy, 16, and Andrea, 15, seem to prefer the "hen side," too. Judy has become quite an expert at bird autopsies, trained by feed company fieldman Floyd Blaser.

Maybe the principle of "controlled environment" will be applied even more to the farm animals of the future. If so, the Tylers will be one of the pioneers with their egg assembly line.

Vegetable Insect Control

(Continued from Page 32)

European corn borer — Where the borer has been a problem, use DDT or dieldrin at seven day intervals as soon as peppers start to form.

Potatoes

Colorado potato beetle, flea beetle, and **leafhopper** — The Colorado potato beetle has become resistant to DDT, dieldrin, and endrin on Long Island. Long Island growers must now use Guthion, Sevin, Trithion, methoxychlor, or phosphamidon to control the beetle and its slugs. These chemicals will also control flea beetles and leafhoppers. In other areas, Dieldrin, DDT, and endrin are still very useful, as well as Thiodan and Sevin for control of all of the above pests.

Aphids — Use parathion, demeton, malathion or Thiodan. Where resistant **green peach aphids** are encountered, Thiodan is the first choice. Formulations of two new granulated systemic insecticides suitable for application into the planting furrow are approved for use. The chemicals, phorate (Thimet) or Di-Syston, applied as granules at planting, are absorbed into the growing plant and give good control of flea beetles. aphids, and leafhoppers.

On Long Island the treatment is effective for about eight weeks; in upstate New York it is effective through much of the season.

Wireworms — Use broadcast soil treatments of dieldrin, aldrin, or chlordane before planting, especially on fields coming out of sod.

Aphids, leaf miners, crown worms —Use parathion as first choice Other materials TEPP, Dibrom, Phosdrin or Diazinon.

For **leaf miner control** on home grown spinach, beet greens and chard—Use malathion when first white eggs are seen under the leaves

Sweet Corn

Use DDT on the **corn flea beetle** which carries Stewart's wilt disease

Corn borer and **earworm** — Use DDT or Sevin. Timing of application, coverage and interval are all very important for satisfactory control. **DDT-treated forage must not be fed to dairy cattle, or to beef cattle being finished for slaughter.** Sevin-treated corn may be fed seven days after treatment.

Tomatoes

Flea beetles — Use DDT or DDD.
Aphids — Use parathion or malathion.
Hornworms or fruitworms — Use Sevin or DDT.
Colorado potato beetle—Use Sevin
Fruit flies — Use Diazinon or Dibrom in the field.



"Twenty-five bucks for a child psychologist, and all he said was 'Spank him'?"



Keep 'em milking with Pen-FZ

two-fisted approach

wins the fight against mastitis

Pen-FZ offers a powerful combination — a "two-fisted" approach to mastitis control: (1) exclusive nitrofurazone . . . (2) plus an antibiotic.

Antibiotics slow reproduction of mastitis organisms, but do not kill. The nitrofurans kill germs by starvation.

Containing both, Pen-FZ achieves effectiveness unequalled by other mastitis treatments.

Keep *your* cows milking . . . protect *your* herd health with Pen-FZ. Available in syringes or tubes.

Note: Milk from producing cows should be withheld from human consumption for 72 hours following treatment with Pen-FZ.



FREE 2-oz. jar of Udder Ointment in special Pen-FZ Udder Care Kit. Look for the colorful counter display at your drug, feed or farm supply store. Ask for "Pen-eff-zee."

Treat dry cows to help prevent "freshening flare-up"

If you have cows with a history of mastitis when in production, treat them when they're *dry* to help prevent "freshening flare-up."

Pen-FZ treatment of dry cows eliminates the problem of withholding milk from market after treatment. To reduce mastitis recurrence in your herd, follow the Pen-FZ "dry cow" treatment program:

For average problem — inject Pen-FZ in each quarter after last milking.

For chronic problem—inject Pen-FZ in each quarter immediately after last milking. Repeat treatment once per week for 2 weeks.

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Udder Ointment — keeps udders in peak milking condition
Calf Scour Tabs — fights calf scours and pneumonia
POL — removes horns safely and painlessly
NFZ Puffer — protection against infection from wounds, excellent for pinkeye treatment.

AH-33



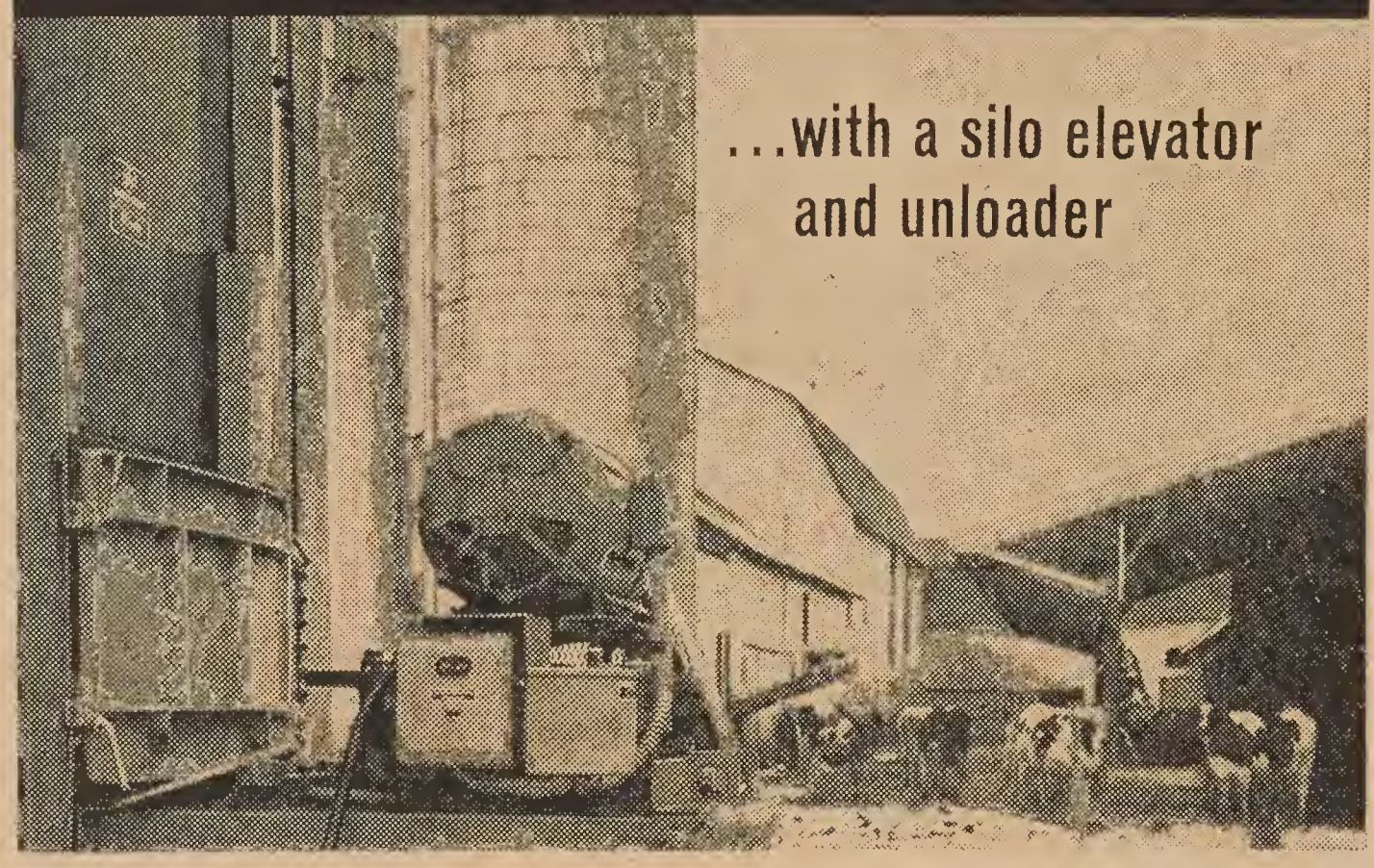
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PUT MORE HEALTH INTO LIFE BY STARVING GERMS TO DEATH

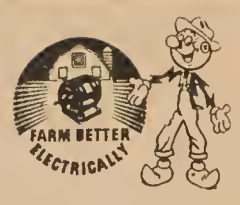
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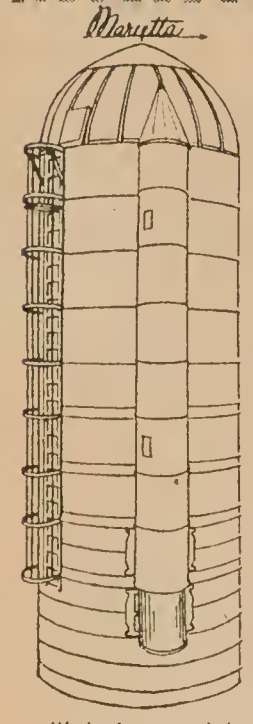
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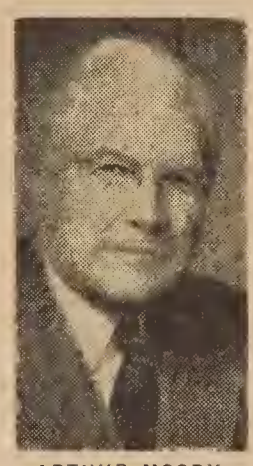
Dr. Naylor's DIRENE

Country Pastor

Made Visible

By ARTHUR MOODY

A WELL-KNOWN contributor to *Fortune* is credited with a striking definition: "Good writing is **clear thinking made visible.**" Without apology to the author, this statement may be paraphrased to apply to living in our day.



ARTHUR MOODY

Good living is **clean thinking made visible.** "Out of the mouth proceedeth the issues of life," and "As a man thinketh in his heart, so is he." The white-souled Man of Men made visible God-like qualities of character. Paul declared, "Christ liveth in me." We can make real His likeness.

Christian living is also **charitable thinking made visible.** Jesus demonstrated this when he said to the accused woman, "Neither do I condemn thee. Go, and sin no more." When He spoke to the ostracized publican Zacchaeus, "Come down, I'm to be your guest today," Jesus shocked the Pharisees. We might measure our integration problems against the Master's acts and attitudes.

What is known as **creative thinking can be made visible.** A critical statement shrivels another's soul, as well as our own. To see the good qualities, the potential for improvement, and to encourage expression, educes good character. We really make Christ visible—or we may mar His Image—by our conduct.

Dates To Remember

February 4-7 — Annual Meeting of the National Dairy Council, Bellevue-Stratford Hotel, Philadelphia, Pa.

February 6-8 — Farm and Home Week, Agricultural Hall, Newark, Delaware.

Feb. 13, 14, 15 — Vermont Farm Show, Barre.

February 15—Deadline for filing income tax returns for 1961.

February 18-25 — National FFA Week.

March 19-21—Annual Meeting of Poultry and Egg National Board, Palmer House, Chicago, Ill.

March 20-22 — Agricultural Progress Days, Cornell University.

March 27-29 — Agricultural Science Youth Program, College of Agriculture, Ithaca, New York.

April 2-5 —Farm and Home Week, University of Maine, Orono.

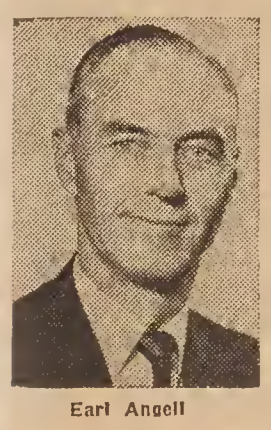
May 17-18-19 — New York State FFA Convention, Lowville Central School, Lowville, N. Y.

May 21 — Guernsey Sale, Woodacres, New Jersey.

August 24-25 — NYABC Cattle Show, Ithaca, New York.

Beef Cattlemen Meet

HONORS IN TWO categories were conferred during the banquet of the Beef Cattlemen, held in the Memorial Room at Willard Straight Hall on Thursday evening, January 11. Rayburn Rice, Clyde, N. Y., 1961 president of the New York Beef Cattlemen's Association, was master of ceremonies. In 1962 the gavel will pass to Earl Angell, Durhamville.



Earl Angell

Elected as "Outstanding 4-H Member in 1961" was Robert Coene, Ontario, N. Y., who received a certificate at the meeting. Bob now owns eight head of registered purebred Hereford cattle, and has sold eight baby beef steers since he started his 4-H beef project.

Also honored was Ray H. Watson, Clyde, N. Y., the first man to be named by the Association as "New York Beef Cattleman of the Year."

Professor Herrell DeGraff of Cornell University was main speaker at the banquet, discussing recent research in human nutrition and the impact which it may have on farm production. He pointed out that, up until recently, nutritionists were interested in discovering the necessary nutrients and ways to provide them in the diet. Now, however, they have shifted emphasis to determine optimum levels of each nutrient, and the consequences of persistent oversupply of any one of them.

Officers of the Association are: Earl Angell, Durhamville; vice president, Harold Brown, Brant Lake; secretary, M. D. Lacy, Ithaca; and treasurer, Roger Bradley, King Ferry.

There are 41 members on the board of directors, one for each county, so, in order to facilitate matters, the counties have been divided into five divisions, each with a chairman and vice-chairman, who comprise the Council. These chairmen are: David O. Beresford, Delanson and Harold G. Haskell, Sand Lake; H. C. Cross, Bliss and Vern Dorvit, Fillmore; Eugene Brinkerhoff, Jamesville and Roger Bradley, King Ferry; Rayburn Rice, Clyde and Scott Traxler, Dansville; and Robert Dennis, Jasper and Guy Smith, Elmira. The president and vice-president of the Association are also Council members.

The meeting passed a number of resolutions, including one which reads as follows:

"Whereas, The cattle industry is proud of its freedom from governmental control, and is the leading example of the fact that farming is not the federal government's business.

Be it resolved that we recommend to the farmers sitting under the all-protective federal wing that they come out and try their feet again."

Other resolutions requested that health standards and regulations on imports be maintained and strengthened against foot-and-mouth disease; for more uniform state health regulations on the interstate movement of cattle; a commendation of the USDA for their help in the eradication and control of disease and insect pests; a decision to inform the membership by mail of the brucellosis testing program of the Department of Agriculture and Markets; opposition to the extension of federal inspection into intra-state meat processing; opposition to the extension of the reciprocal trade laws, and the resolve that tariff-making power be returned to Congress; a request that the Department of Agriculture and Markets extend their efforts to prevent anaplasmosis.

LICENSE DEALERS

Beginning July 1, all persons dealing in New York State farm products on other than a retail basis will have to be licensed and bonded under the revised Agriculture and Markets law. The amended law covers dealers and brokers as well as commission merchants and net-return dealers.

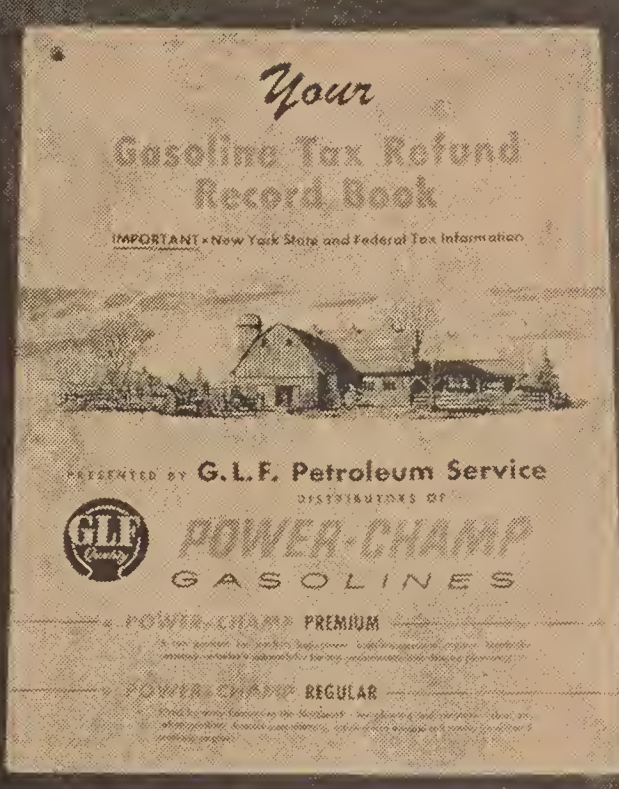
Under the Agriculture and Markets Law, a commission merchant is anyone receiving farm products for sale on commission; a broker is a person negotiating sales and purchases of farm products for and on behalf of the vendor or purchaser; a dealer is anyone buying farm products for sale other than at retail; and a net-return dealer means a person who solicits or receives farm products under a promise to pay at the current market price on receipt, or at a specified price above or below the established market price.

Persons to be licensed must obtain a bond from a surety company authorized to do business in New York State. The bond is fixed by the Commissioner at not less than $1000 or more than $25,000. Bonding forms and applications establishing specific bonds for each dealer, etc., will be mailed to prospective licensees by May 1, and should be returned by June 1 to guarantee processing in time for the July deadline, after which penalties may be assessed. The license fee will be $15 for the initial application, and an additional $3 for branch offices of the parent organization.

If you are in doubt whether you come under the revised law, write to the New York State Department of Agriculture & Markets, Division of Marketing, Albany 1, N. Y.

free

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Last year 25,000 GLF members used this tax record kit to collect hundreds of dollars in gas tax refunds. Many of them filed for the first time, because they now had accurate records of the gas actually used for farming. And you can keep accurate records, too. Just fill out the coupon below and we'll send you your Gasoline Tax Record Kit. Here's what you'll receive:

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A weatherproof plastic case that can be attached to the gas pump.

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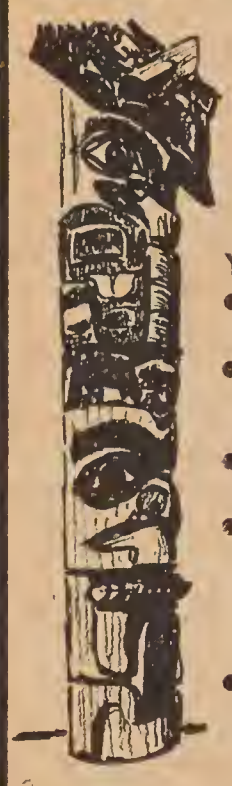
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Please rush my copy of your valuable gasoline tax record kit.

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In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

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This substance is now available in *suppository* or *ointment form* under the name *Preparation H®*. At all drug counters.



Vegetable Varieties

The Best of the New and The Old for Your Garden

By ARTHUR J. PRATT*

LET'S START with **tomatoes.** More gardens have tomatoes than any other crop, and few crops will produce more pounds or save the housewife more pennies per square foot of garden. Before I suggest any varieties suppose you tell me what you expect of a tomato. We aren't all cut from the same pattern, you know, and what I like may not be what you want at all.

Do you want a single variety that will bear a few fruits early and continue to produce for several weeks, or do you want a real early one that will produce heavily early and then follow it with a later and different-flavored kind? Do you prefer a mild variety, or do you want one that has some "flavor?" Do you grow tomatoes mostly for fresh use, or do you want some for canning or juice? Would you like a few of the bite-sized cherry tomatoes that are becoming very popular?

Most gardeners have tried **Fireball.** It is early, and will produce heavily if it is sprayed with Manzate or Dithane M22 once a week to control early blight. The plants are small, and are often planted 12 inches apart in rows 3 feet apart. It is not fusarium wilt resistant, and should not be grown on "wilt-sick" soil (where you have had trouble with wilt previously). A new variety called **Gardener** that was developed by Dr. Munger of Cornell is nearly as early as Fireball and less susceptible to early blight.

Manapal, a multiple-disease-resistant tomato developed by Dr. Walters of Florida's Gulf Coast Experiment Station, is an ideal main season variety for those who need disease resistance, especially to wilt.

Moreton, Cardinal and Burpee hybrids are excellent main season tomatoes that may bear their first ripe fruit almost as soon as **Fireball,** but which will normally continue to bear much longer.

For a mild tomato it is hard to beat the old **Ponderosa** (pink). Large and small **Red Cherry** tomatoes are excellent "bite sized" varieties to serve whole. Some like small **Yellow Pear** and **Yellow Plum** tomatoes, but others think they are tasteless. These are generally used fresh and not canned.

Sweet corn ranks high on the popularity list with all gardeners who have adequate space. Because weeds in it can be controlled by spraying the ground with Simazin or Atrazine some folks are planting one half of the garden each year to corn as a means of keeping weeds under control. It works, but be sure to use only the recommended amount of chemical, especially Atrazine, or you may have trouble growing anything but corn on that part of the garden the following year.

Almost every seedsman has some excellent early, midseason and late F_1 sweet corn hybrids. If you don't have some favorites of your own, take those that your favorite seedsman recommends.

Tendercrop is the best **green bean** to grow for home use, canning, freezing and roadside stands. Its best recommendation is that it is too tender to ship well! Be sure to buy bean seed that has been double treated with Captan and Dieldrin for protection against seed decay and seed corn maggots. This is especially important for the early planting.

The urge for **beet greens** has greatly increased the demand for green-topped varieties of beets. **Long Season** and the various **Green Top** or **Stays Green** strains are excellent.

Many new varieties of **broccoli** are appearing on the market for the first time this year. Until we know more about them the home gardener had best depend on **Green Mountain** for the early crop and **Waltham 29** for the late crop.

Jade Cross is the first F_1 hybrid **brussels sprouts,** and is an excellent one for the home gardener.

The **Nantes carrot** has long been the best, and plant breeders are working to improve it so that it may continue to be the best one for a long time.

Hybrid Cucumbers

F_1 hybrid **cucumbers** seem to be increasing in number and popularity. Burpee hybrid was one of the first for slicing. Other good slicer hybrids include **Burpeana, Saticoy,** and **Sensation.** For those who want the short type for picking the F_1 **Hyerop Pickle** developed by Dr. Graham of Canada, or the all-female hybrid **Spartan Dawn** developed by Dr. Peterson of Michigan State University are excellent. The latter must be kept picked closely or the plants will become stunted by overbearing.

The **Black Magic** hybrid **eggplant** is very prolific, and likely to satisfy home gardeners who have not had much success with this crop.

Be sure to get mosaic-tested strains of **lettuce** if possible. They are labeled M.T. after the variety name. **Penn Lake, Great Lakes** and the new **Oswego,** developed by Dr. Raleigh at Cornell, are among the best crisphead lettuce varieties. **Sweetheart** is a new butterhead or Boston type of lettuce. **Bibb** is a distinctive early lettuce that rates tops in quality with many, but should be planted in April or early May, or in late July or early August. If planted in June it is likely to develop seed stalks before forming a good-sized plant. **Ruby** has very attractive, deep red, fine curled leaves. **Salad Bowl** is often rated as the best home garden lettuce because it will stand a long time before going to seed. A new planting should be made every two weeks, however, as it will become tough and poor quality after standing for a long time.

Hybrid **muskmelons** are stealing the market away from the old line varieties. **Burpee, Harper** and **Supermarket** hybrids are among the best.

Hybrid **watermelons** to date are mostly limited to the tri-X or triploid "seedless" varieties. Among these are **Seedless Hybrid 313** and **Seedless Hybrid 317.** The seeds for these must be germinated indoors at a temperature of 85° for 3 days.

(Continued on Page 41)

*College of Agriculture, Cornell

Controls Follow Supports

(Continued from Page 10)

lowed by unfavorable publicity on fallout and its effect on milk, all of which has tended to cut consumption of fluid milk.

I always like to look ahead. If high supports and controls strict enough to keep supply in line with demand are to be the method of bringing prosperity to farms, how are they going to work out?

We have had a year's experience with the feed grain program. Some claim it was reasonably successful; others that it was a flop. Certainly, the cost compared to the results was tremendous, and it seems clear that controls must be tighter to make it work, probably on a bushel or ton basis, rather than in terms of acres.

Now we are going into a similar program on wheat. If we should then get production control on turkeys, on milk, on potatoes, the next step might be eggs and broilers, leaving two important products out in the cold, namely, fruits and vegetables.

At this point in my thinking I become greatly confused. I can see no way in which high supports and controls can be applied to fruits and vegetables. We have thirty or more vegetables; we have a dozen or more important fruits (grown in both North and South and at different seasons) some irrigated, some not; some even in greenhouses.

But if high supports and controls on fruits and vegetables are not feasible, what is the answer? I certainly cannot see that at that point the Administration will say: "Sorry. We have used high supports and controls to help everybody else, but there is nothing we can do for you."

Brannan Plan?

Certainly they won't say that. So I ask myself, what will they say or do? To me the most likely answer will be that it will be some form of the Brannan Plan, another name that is unpopular, so now we tend to talk of production payments. It's the same thing under a different name, characterized by government checks to farmers to represent the difference between the market price and what someone figures is a fair price. As I see it, that would be disaster for farmers!

One government activity which I thoroughly resent is the demand from Washington that government employees in the ASC, or even in Extension, go out and "sell" a proposed program to farmers. I'd readily admit that it is their job to explain the programs, but they have gone far beyond that.

I also object to the setting up by government of a program so attractive that it is practically impossible for a farmer to turn it down. He may be opposed to the idea; he may understand all of the dangers; and yet he will say: "It's the law; it is available; other farmers are taking advantage of it; and how can I be blamed for accepting it?"

In summary, it seems obvious that we cannot continue along the road of government supports and subsidies without some degree of production control. It has been the consistent position of the staff of AMERICAN AGRICULTURIST that the correct procedure was gradual reduction in supports to a level which would not encourage over-production, but which would be insurance against disaster.

It has been said that this plan has been tried and found wanting. Actually, it never was tried. There were a few gestures in that direction, but before results could possibly come its opponents charged that it had failed. At the same time, it was the opinion of the staff that even though other segments of our economy receive some subsidy, in the long run farmers would still be better off without them. It seemed obvious to us that farmers now would be in far better economic situation had supports been dropped within a short time after the close of World War II, as was originally planned.

Alternatives

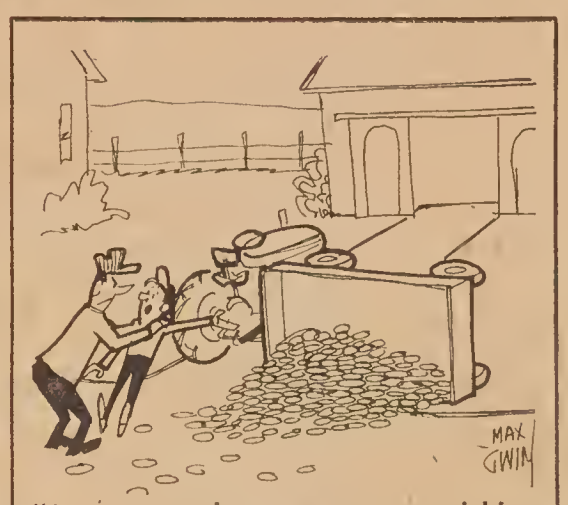
There are some alternatives to straight government controls in terms of acres, or even bushels or tons. One is a greater use of marketing orders to promote orderly marketing. A marketing order can be used to keep low-grade products off the market, but under the present law cannot be used directly to control production.

Cooperative associations of farmers can practice orderly marketing and have considerable effect on production, either through limiting members to those who produce the quality consumers want, or by contracts with members to produce not only quality but the quantity the market will take at a reasonable price.

But these alternatives cannot do the job if the Administration insists on high supports in an effort to boost prices!

It has been charged that the Administration follows a practice of getting a product into difficulty and then posing as its savior. An example of this is soybeans, a crop that had a good demand and had enjoyed considerable increase in acreage. However, without request from farmers, 1961 supports on soybeans were raised from $1.85 to $2.30, and production was increased by 27 percent over last year, to a point where a surplus, accompanied by government buying, is certain if high supports are continued.

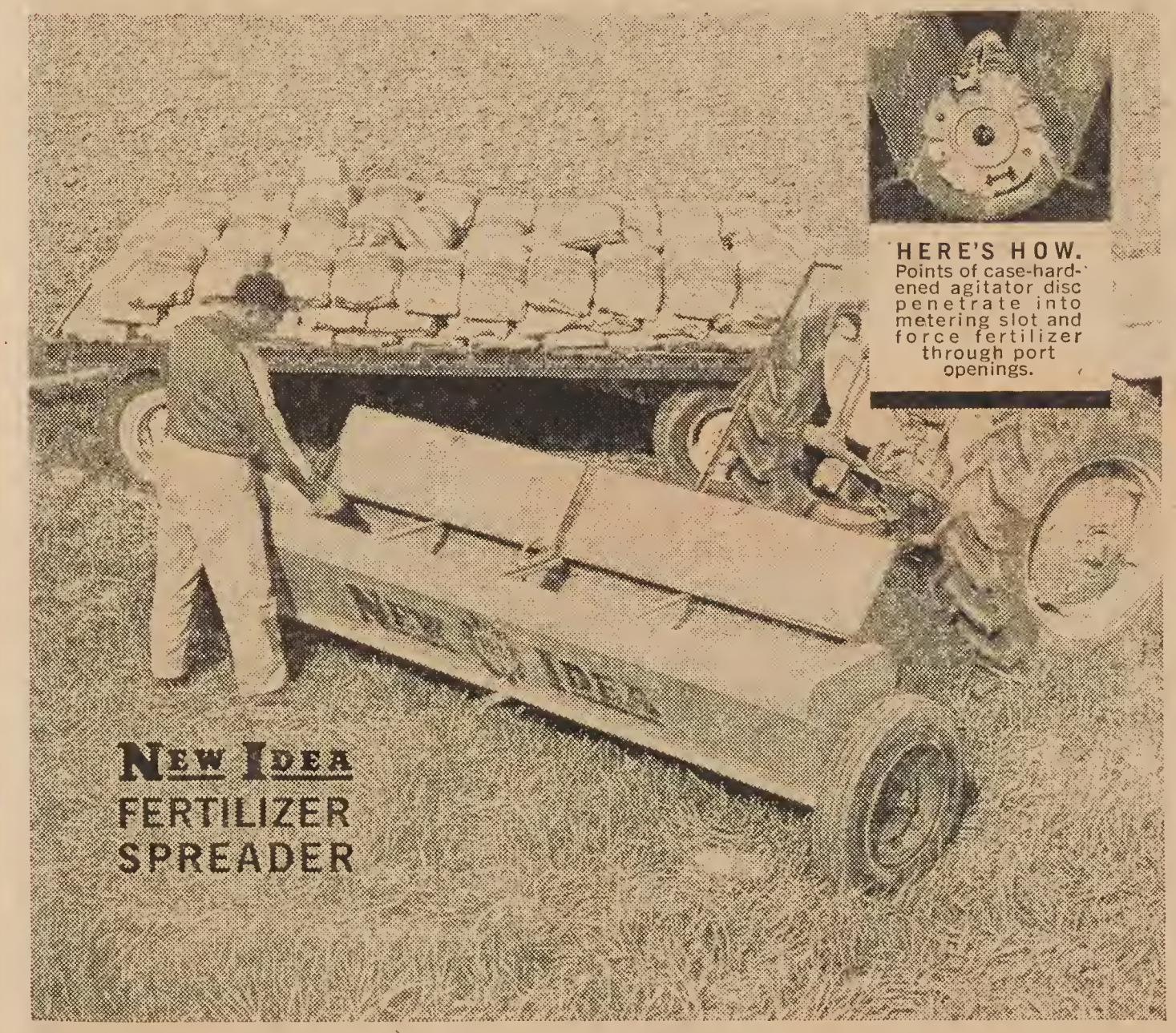
The problem of accepting or rejecting production controls is an extremely serious one. Many farmers feel that controls will hurt agriculture; others believe they will be the salvation of farming. Meanwhile, I feel that producers of any product should study carefully any proposal that is made, reserving judgment and arriving at a conclusion slowly.



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Potato-Growing Trends

(Continued from Page 14)

New Jersey has now extended its marketing season from August until February instead of its former range from July until November. Bruce Falconer, Robinsville, a well-known dealer, provides an answer to where New Jersey finds a market for its crop. Along with a number of other dealers Falconer has chain store connections, and much of the supply moves through these channels, packaged in the consumer-type of bags. Many are packaged right on the farm.

Another important market is in the South. Every state south of the Mason-Dixon line and east of the Mississippi River absorbs an ever-increasing volume. And in supplying the southern markets New Jersey enjoys an enviable position. Southern trucks coming to the New York-New England area turn to New Jersey for a return load. It is only a matter of a few miles from the New Jersey Turnpike or U.S. 130 to a dozen or more distributors who can quickly load trucks for any market from Philadelphia to Miami. Those from states like West Virginia, Tennessee or the Deep South may use a number of direct routes back home.

New Jersey even has an advantage over Long Island. It may not be a matter of lower transportation costs, but trucks avoid the traffic problems through New York City.

Another factor that is aiding growers in the late fall and early winter months in getting into southern markets is a greater availability of trucks. It is a recognized fact when the citrus season in Florida opens up, there are more trucks seeking loads for the return trip to Florida. Lester Roork, Elmer, ships a substantial volume of potatoes via truck direct to Miami.

In talking with New Jersey potato growers, I find that they did not go into the storage deal with much enthusiasm. In fact, every grower who has stored potatoes has done so reluctantly.

A number of factors have held back the erection of modern storage houses. Until recent years, Garden State growers liked to dig and sell right from the field. They wanted to start digging in July, finish up early in September, seed cover crops, and call it a day. No longer could these growers operate like those in the South, who marketed their crop in about 30 days or so.

Many Jersey growers like to finish harvesting in early September, then drive up to Maine on a pleasure-business trip and buy their seed for the following year. All this has changed.

High Costs

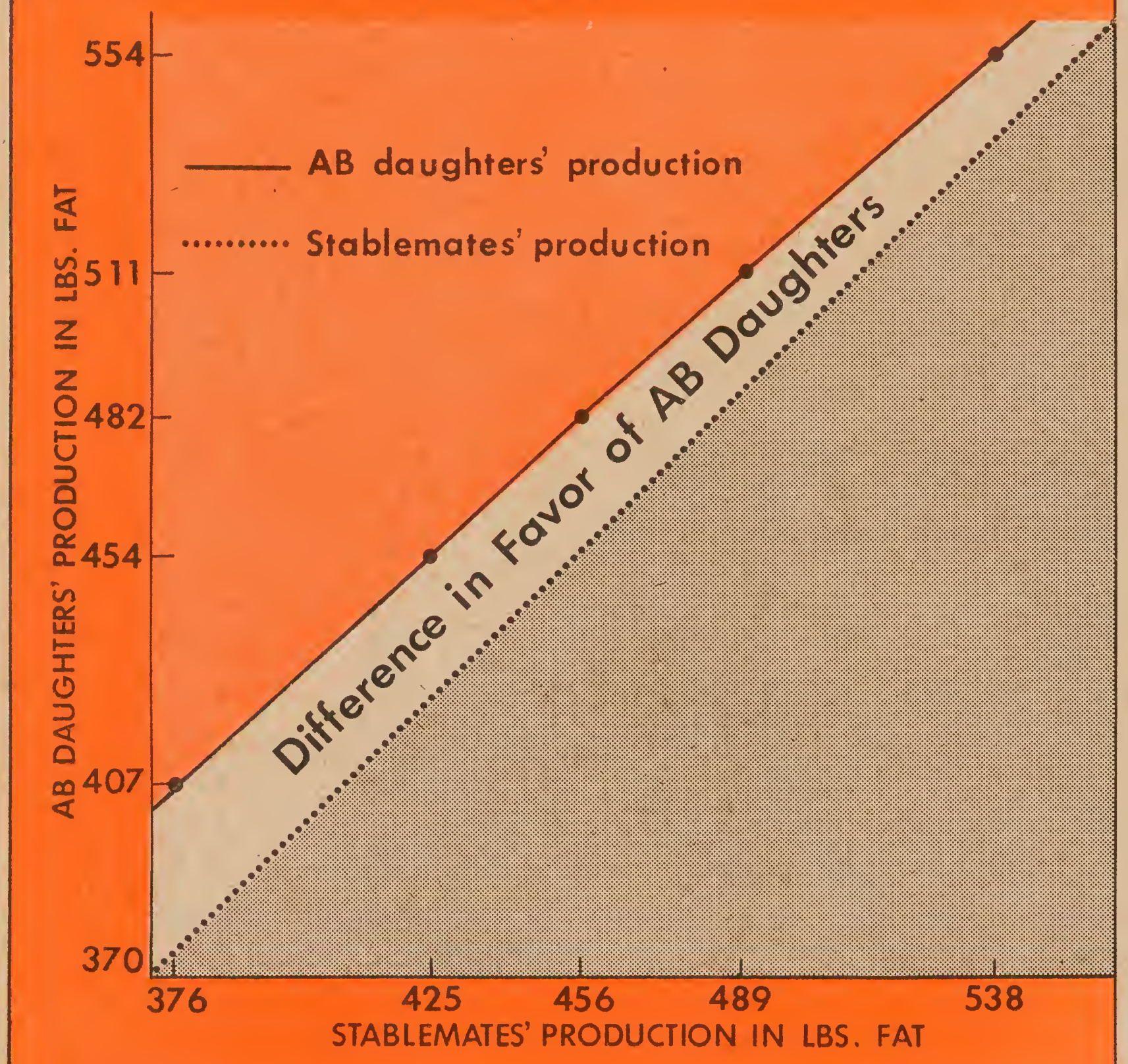
Another factor that delayed the move into the late-state group has been the cost of erecting storage houses. It costs around $20,000 to build a 20,000-25,000 hundredweight house. This figure can be stretched both ways, depending on individual situations. Not only did the grower have to invest huge chunks of money in storage facilities, but he has had to wait until the potatoes sold before he was paid. All these factors together, and one soon realizes that potato farming is really big business.

John Pollack, Cranbury, president of the State Potato Association, confirmed my estimates on total investment on growing potatoes. Let's add up the costs. A 100 acre farm at $750 an acre (not all that high—$500 might be closer to the average) starts off at $75,000. It takes about $50,000 worth of equipment to plant, grow and harvest the crop. To this add $20,000 for a storage house. This totals around $145,000 before a potato has been sold. On top of this, the grower has maybe as much as another $30,000 in unsold potatoes.

With potatoes selling out of the field at around $1.25 per hundredweight, and the cost not far from $1.75, one must erect storage houses and carry a part of his crop until the markets level out at a price that pays production costs.

This all adds up to some form of production control, yet potato growers as a group want no part of strict government controls. All New Jersey growers with whom I have talked are in favor of self-imposed controls, with government supervision. It now looks from a Jersey potato grower's point of view that they will accept some form of a market agreement. Years ago New Jersey made a mistake when it tossed out of the window a marketing agreement. Today most growers will agree that it should have been left on the shelf and then dusted off and put into use when needed. This is a year when some form of marketing agreement might have helped everyone.

RELY ON TOP NYABC AB PROVED SIRES TO DO A GOOD JOB AT ALL PRODUCTION LEVELS



From research by Prof. H. W. Carter based on May 1960 AB data

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"It drives me crazy lying here thinking what inflation is doing to that dough I buried!"

It's New

Cow-Wash — The latest California commodity is the cow-wash. Cows are herded one by one through a maze of squirting pipes and swirling brushes, which soak, scrub and rinse each cow in 4½ seconds. It is claimed that a cow can be readied for milking at a great saving of time and labor. Three gallons of water is required for each cow.

Easy Mowing — But not for homeowners yet. MH-30, a growth retardent developed by the Naugatuck Chemical Division of the U. S. Rubber Company, will be used for highway grass control on many northeastern state highways, particularly on slopes and narrow strips between high speed traffic lanes. The chemical must be applied with special equipment, at a controlled rate and even speed.

New Lime Test — Only ten minutes are required to determine lime needs of soils with a new test developed by Cornell University soil chemists. The test accurately measures the greatest amount of limestone that can react with an acid soil, thus marking an improvement over the pH test now used.

Fresh Longer — A chemical known as "SO 4910", sprayed at harvest time on head lettuce, leafy lettuces and other vegetables like Brussels sprouts, green onions, etc., will prolong their freshness and keep them in better color several days longer. The plant growth regulator was recently discovered by the Shell Development Company, 110 W. 51st Street, New York 20, N. Y.

Brucellosis Detection —USDA scientists report a promising new method for detecting bovine brucellosis. Called the Heat Inactivation Test, its primary value will be to supplement the standard tube and plate agglutination tests by clarifying the brucellosis status of cattle in problem herds. More information can be had for the asking from the USDA, Office of Information, Washington 25, D. C.

Harven — This is the name of a new fungicide developed to protect strawberries during shipment. Tests of berries dipped in dilutions of the fungicide prove that it keeps mold away from 1 to 2 days longer at room temperature, and from 5 to 6 days longer in cold storage. It also imparts an attractive glossy coating to the fruit. If you are interested in having further information, write to Professors R. C. Moore and G. D. Oberle, Virginia Agricultural Experiment Station, Blacksburg, Va.

Multiple Shot? — Cornell's Veterinary Virus Research Institute has isolated a virus that has produced mastitis in controlled experiments. And by using this virus as a vaccine to inoculate dairy cattle, it has produced immunity.

Now it must be determined whether the same results can be obtained under actual operating conditions on the farm—and also whether the organism is sufficiently prevalent on farms to justify a general vaccination program.

Also under experiment is a multiple-shot vaccine that would enable a farmer to have his cows immunized through a single injection against leptospirosis, bovine rhinotracheitis, and virus diarrhea, the latter of which is associated with virus-produced cattle abortions.

What's UGF? — That is what the poultry scientists at the University of Wisconsin are trying to pin down. Many scientists suspect that the Unidentified Growth Factor will prove to be a water-soluble vitamin or combination of vitamins. If it could be chemically identified, it might be possible to make it in laboratories at low cost and add it in a more concentrated form to rations.

VEGETABLE VARIETIES

(Continued from Page 38)

Sugar Baby is a good "ice-box" type, with fruits seldom over 7 or 8 inches in diameter.

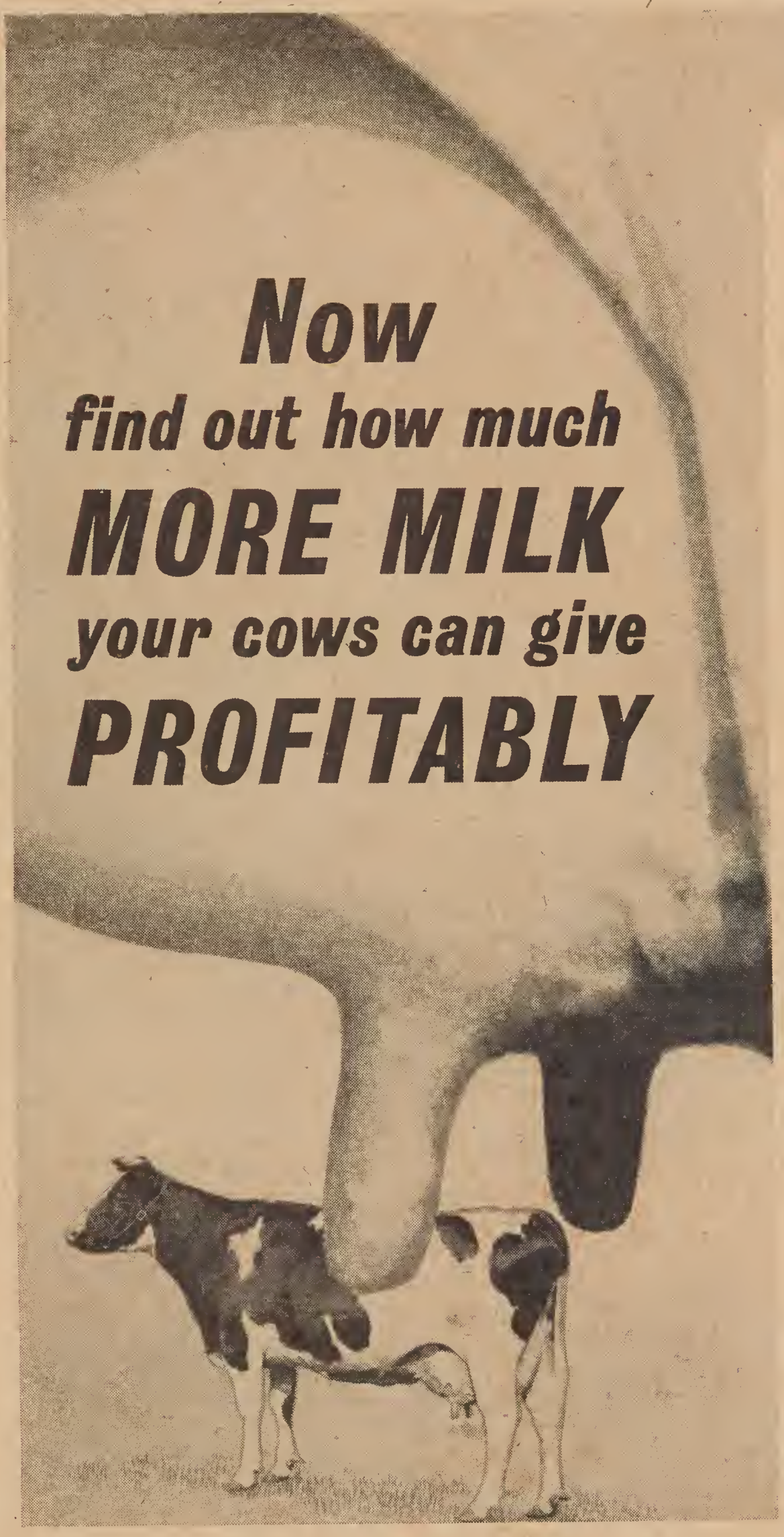
Buying the proper seed is only a part of the recipe for a successful garden. A good crop takes lots of fertilizer. My garden gets a broadcast application of 3 or 4 pounds of 12-12-12 per 100 square feet, put on before rototilling so that it is thoroughly mixed with the soil.

It is almost foolish to try to grow melons in the Northeast any other way than on black plastic mulch. You may be able to do it, but you would do it just that much better on the black plastic. Black plastic also helps to keep the weeds down in the rest of the garden, and is especially good for the gardener who can't keep abreast of his work in July, or perhaps would like a vacation then.

Irrigation is a help. Don't wait until the garden is "all dried up" before watering it. Get a good automatic sprinkler and let it work for you.

Finally, be sure to get an early start and to keep planting just as late as possible. The "Memorial Day" gardener who starts and finishes planting his garden all in one day is only half a gardener. He will tell you with an apparently straight face, "things grow so much faster because of that late planting that they are ready to eat just as soon as if they had been planted earlier." How a man can say that when some of his neighbors are already eating radishes, lettuce, spinach, beet greens and green onions from their gardens before he starts to plant his own is more than I could ever figure out. Do you suppose that he believes it himself?

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your cows can give
PROFITABLY



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You can easily find profitable production levels following the *Wayne concept* of feeding needed grain mixture for *increased* production, instead of feeding to present production.

High level grain feeding is profitable, as shown by a summary of DHIA records from Michigan. It was demonstrated that when the amount of grain per cow was increased from 2,154 lbs. to 4,703 lbs. per year, the return in dollars *above feed cost* went from $157 to $438!

Your Wayne dealer will show you how to apply the new "More for Your Money" concept to cows already in their lactation period . . . how to use it in conjunction with a silage ration . . . how to balance grain mixture use with greater production. Why not see him *today*.

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I WAS JUST FIGURING...

by Cy Watkins



HOW TO BUILD GREAT LAYERS

Building a chick into a great layer is a lot like making a bumper crop. You buy good seed, make sure the soil has the nutrients the plant needs, and then you manage it right . . . plant right, keep the weeds down, etc.

Same with chicks . . . only more so.

First. You need good seed. In other words, buy the best chicks you can find. Look at the performance instead of the price. It just doesn't pay to spend money raising chicks that don't have the bred-in stamina and capacity to lay at a profit. You may save a dime on the chick and waste **dollars** on feed she can't turn into eggs.

Second. You've gotta feed 'em the makings. They have to have the necessary nutrients to build the sturdy body and organs a good layer needs . . . and if they don't get it from the feed, they don't get it at all. You can't feed 'em a cheater-feed, short-change 'em on vital nutrients, and then expect 'em to be champions in the laying house.

The Chick Starter and the Grower you feed on the Watkins program are premium quality rations. They're highly fortified with Watkins MIN-VITE to provide guaranteed amounts of essential MINerals, VITamins and two antibiotics. When your Watkins Dealer shows you the comparison between the Watkins recommended rations and the National Research Council minimum standards, then you'll know what I mean . . . because no corners are cut, and critical nutrients are supplied at bonus levels.

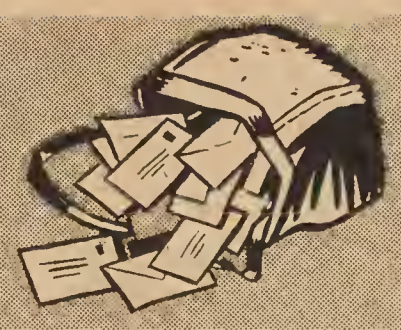
Yet, in spite of the very high quality of the Watkins recommended rations, they cost very little because you can use your own grain and locally purchased proteins. It takes about 8¢ worth of the Chick Starter, and something like 60¢ worth of the Grower . . . and 4½ to 5 months . . . to get a chick ready to house. All things considered, I don't think you will beat that . . . anywhere.

Third. Good management and sanitation, you can't do without. I can't tell you about the Watkins recommended program here, but I can say it's not at all unusual for farmers using this program and feeding the MIN-VITE fortified rations to actually house more pullets than they bought . . . so you know it's good.

Next time your Watkins Dealer calls, I hope you'll ask to see the NRC Comparison table he has for poultry, and his recommended management and sanitation program . . . and consider whether the Watkins Way isn't the way for you this year.

WATKINS PRODUCTS INC. Newark, N. J.

Readers Tell Us!



FEDERAL AID EXPENSIVE

Federal aid to states and localities increases the cost of doing the work, and the whole country becomes more socialistic. Government should decrease such activities, and expend more effort in holding the line on overall costs of government so that federal debt may be reduced and income taxes lowered. Otherwise, cities and localities will go bankrupt trying to build sewage disposal plants, water systems, schools and roads with higher and higher costs. . . .

There has been a growing realization that the springs of economic growth and sound prosperity lie not in government but in the freest exercise of individual choice, and that this trend toward constantly extending the blanket of government is not a liberating development but a stultifying one.—*Harold P. Hitchings, Raleigh, N. C.*

EARLY HISTORY

If you have any information on the history and early settlers of Loudon, New Hampshire, I would like to hear about it. If any descendants of these people have any pictures taken of buildings or people, any books or old papers, maps and old deeds, or any information of their families regardless of what it is, it may be just what we are looking for.

Please contact me regarding this information before sending any pictures, books, papers, etc.—*Herman L. Annis, R.F.D. 6, Loudon, N. H.*

SIZE OVEREMPHASIZED

It would be foolish to suggest that the way to control surpluses is by doing a poor job of food production, such as curtailing the use of lime and fertilizer, using antiquated machines, planting low yielding varieties of seeds, etc. This would do the job all right, but each individual farmer would lower his standard of living as the result.

We should follow the results of the latest research and field trials with an eye to increasing our producing capacity and cutting the cost of production per unit. This is an area where government can help — in research —in the various services such as the extension and conservation service—in the fields of training in our state colleges of agriculture, forestry and veterinary medicine, and the various ag tech institutes.

There has been too much emphasis on size of business, and too little on improving the producing capacity of an existing business. It would be hard to find a farmer, regardless of his present size of business, who would say that he couldn't do a better job than he is doing now.

Regardless of what some prophets of gloom may say, the 24-40 cow farm will continue for many years to be a profitable business if enough attention is paid to detail. I enjoy looking at the achievements and successes of my neighbors—I always see practices by which I can improve my own job of farming. I believe if we in agriculture would take stock of the great potential we have before us we would say that each of our farms is a new frontier.

Finally, if we will support our cooperatives and farm organizations and insist that our feelings are followed by those we have chosen for leaders, we will continue to improve the lot of the farmer. — *Bernard Potter, Truxton, N. Y.*

UNIONS FOR FARMERS?

If farm workers wish to become members of unions to try to benefit themselves in working conditions or wages, that is their right as American citizens. I would, however, question the objectives of unions and their paid organizers in urging such membership. Are they interested in improving the lot of agricultural labor or are they interested in increasing the power of the union by larger membership, or even by getting a stranglehold on the food industry from the farm to the table?

In many ways the interests of farm owners and those of the average union member are not compatible. Farmers need the best price possible; union members are consumers seeking lower food costs. Every time that wages go up in food processing, food handling, transportation or retailing without a corresponding increase in productivity, the tendency has been to take it out of the price of the raw product rather than to raise the retail price.

Where would unions stand with their members if they reversed the trend and even raised the price of food at the farm? In some types of agriculture they might seek to benefit farmers who joined their ranks by securing for them a preferred market through union channels while other farmers were excluded and left to sell for surplus prices.

It appears to me that for farmers to join existing labor unions could do little for them. It could easily be a dividing force to set neighbor against neighbor at a time when agriculture needs to pull together.

The best ANTIDOTE is for every farmer to assume the responsibility of seeing that his help have fair and equitable treatment.—*J. C. Corwith, Water Mill, N. Y.*

LIME FOR COONS

We have been having trouble with raccoons in sweet corn. Box traps took their toll, but there were still more coons. We live close by a brook with many broken trees.

When the coons started last year, a neighbor told us their coon troubles stopped after they threw hydrated lime over the ears liberally. We tried it, and had no more coon trouble. To see if it really helped we did not protect part of a last planting. The coons came in those rows.

Have you heard of anything like this before? Electric wire and lights did not help our other neighbors.

—*Albert Hagen, Flemington, N. J.*

Editor's note: We have found that newspapers between the rows work very well, and are effective except when it rains. Then they have to be renewed.



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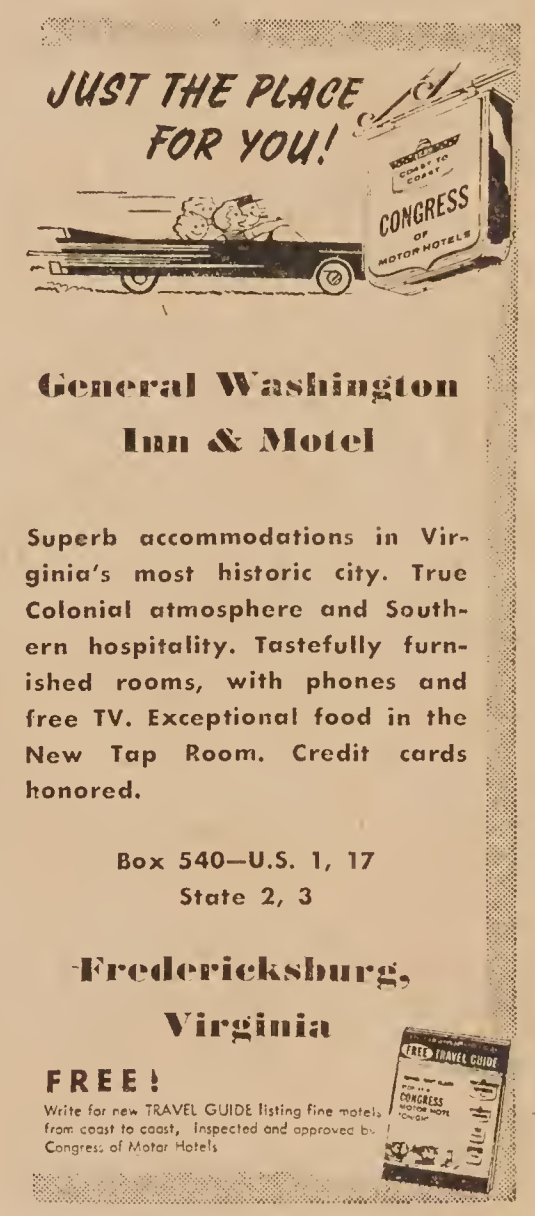


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MERCK

CATTLE HEALTH BULLETIN

CAKED UDDER CAN'T BE PREVENTED . . . IT CAN BE TREATED

Caked udder or mammary edema is frequently encountered in high-producing heifers and cows shortly before or after calving.

The painful swelling—which often extends from the floor of the chest to the udder—can result in a serious loss of milk revenue for 1 to 2 weeks or longer. If the condition is neglected, or is a chronic problem at calving time, the udder attachments may break down prematurely and reduce the productive life of a valuable animal.

CAUSE OF CAKED UDDER STILL NOT KNOWN

The exact cause of caked udder is still not known. Most cases, however, are due to the strain placed on the heifer or cow as they prepare for the onset of lactation. The changes in blood protein brought about by the formation of immune bodies for the colostrum or first milk, are believed to be important contributing factors.

NOTE: A change in feeding practices, such as a reduction in grain, will not, in most cases, prevent udder edema. In fact, reducing the grain intake of high-producing animals just after calving may increase the possibility of ketosis or acetonemia.

NEW VETERINARY DRUG PROMISES PROMPT RELIEF OF UDDER EDEMA

Caked udder can now be treated with a new, effective drug, DIURIL® Boluses available from your veterinarian. Ineffective, time-consuming practices such as the use of massage, mild liniments, bag balms, and hot Epsom Salt packs can now be eliminated.

After treatment with the blue DIURIL Boluses, under the direction of your veterinarian, you will probably see and feel a difference in 24-48 hours as the hard, tender and swollen bag becomes soft and pliable. Warning: milk taken from dairy animals during treatment and for three days after latest treatment, must not be used for food.

DIURIL Boluses for caked udder or mammary edema problems — before and after calving — are available only through your veterinarian.

MERCK CHEMICAL DIVISION
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Minimum Tillage Report

(Continued from Page 1)

crops can be handled in the same way as corn. Last year, Dr. Roger Sandsted of Cornell obtained amazingly large yields from beans planted on the furrow. Limited research suggests that this method can also be used with transplants such as early cabbage or tomatoes, but further study will be required before any recommendations can be made.

Since grass and legume seeds should not be covered more than ¼ inch deep, it is obviously impossible to have fine soil particles around the seed and coarser lumps on the surface. Hence, it is necessary to depart from the ideal and crush the surface lumps before seeding. But even for small seeds a flour-like seedbed is not desirable.

We are prone to forget that wet soil is a semi-liquid and we sometimes underestimate natural weathering processes. The best time to till soil is when it is sufficiently moist that a handful can be squeezed into a weak ball that will crumble readily, but is not sticky or pliable. At this moisture-level, the solid particles are lubricated and clods are softened. That is why dry clods fall apart so easily after a gentle rain. But if a handful of soil feels sticky and looks slick, it is in a condition where harmful compaction may result. While it is true that soil can be dried by tillage, people who do it wind up with dust on top and concrete underneath — neither of which are recommended for crops.

But even when soil is not too wet, structure can be injured and crop yields reduced by too much fitting. This is largely because falling raindrops, plus alternate wetting and drying, continue to make even smaller-size soil particles after the tillage stops. People who insist upon a "well worked" seedbed should examine the soil after they have planted and again following a hard rain. Usually, it will be found that the soil particles have filled the soil pores, the surface is crusted, air and water have difficulty entering, and conditions are right for runoff and erosion. Therefore, it is better and less costly to leave some small lumps and clods for nature to break down.

Tillage Equipment

Until recently, the tillage equipment that could be used was limited by the power available for pulling it. Although power is still a factor, larger tractors have made it less critical than formerly and, as a result, there are several equipment combinations in use.

Trailing a clodbuster behind a plow is becoming increasingly popular. Although most widely used by potato growers, it is common on other cash crops and even dairy farms. The clodbuster does such a good job that for some crops and on some soils no further secondary tillage is needed. Some corn growers use it before wheel track planting.

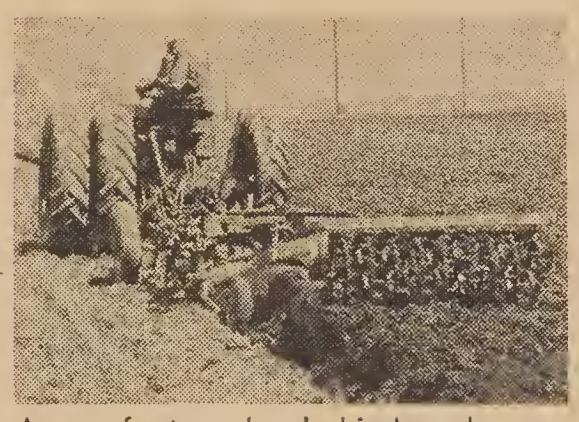


Here's a clodbuster bustin'!

The clodbuster is trailed by a chain and offset to work on the furrows turned on the previous round. The teeth revolve like a pinwheel, penetrate to a depth of about four inches, reduce air spaces, and leave a rough surface.

Equipment for plowing and planting corn in one operation was one of the first trip-saving combinations used, and called attention to the very small amount of fitting which certain crops require. However, the term "no fitting" is not correct, since a narrow strip on either side of the seed is smoothed and firmed by the shoe and press wheel of the planter. Corn yields obtained by this method have been equal to those obtained by conventional fitting. Cornell Bulletin 1031, entitled "Plow Plant Method of Corn Culture," suggests ways by which equipment can be adapted.

Although plow plant is used by many people, some larger growers find it necessary to get some of the plowing done beforehand, so prefer wheel track planting. As the name implies, wheel track planting merely involves spacing the tractor wheels to permit planting in the wheel track There are many different ways whereby wheels can be spaced at the desired width.



A crowfoot packer behind a plow on Robson Seed Farms, Hall, N. Y.

Another handy piece of equipment is the "rolling harrow" that bolts to the right rear tractor wheel. It not only does an effective job of seedbed preparation, but by taking weight from the tire in the furrow, reduces compaction. As with other fitting equipment on freshly plowed land, it tends to clog if the soil is too wet. However, this may be an advantage, since it encourages waiting until the land is sufficiently dry.

The combination of cultipacker and springtooth harrow is excellent for preparing the shallow fine seedbed essential for grasses and legumes. Because of this, it deserves far more attention than it has received.

No tillage discussion is complete without some reference to plowing. Plowing is the first tillage operation, and unless it is well done, the secondary methods that have been described will not be satisfactory. We've plowed an experimental plot to a depth of sixteen inches. It was expected that turning up this amount of sub-soil would decrease yields the first year, but to everyone's surprise alfalfa was better and corn was as good on the deep as on the normal depth plots.

One of Ben Franklin's recommendations was "Be not the first to adopt the new nor the last to abandon the old." If we add the words "but don't jump into new things on too large a scale," Ben's advice will apply to minimum tillage.

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(Continued on Opposite Page)

(Continued from Opposite Page)

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CASSEROLES FOR WINTER MEALS

by ALBERTA D. SHACKELTON

EVERY COOK loves to prepare casserole main dishes. Once a casserole dish is ready, and most of them can be prepared ahead of time for popping into the oven later, it seems as though the whole meal is practically made. Add a quickly prepared salad, or a make-ahead molded one, some favorite muffins made from your own recipe or a mix, fruit, cookies, and a beverage, and it's time to call, "Come and get it."

These casserole dishes will make good eating for cold, wintry nights.

TURKEY OR CHICKEN DIVAN

2 10-ounce packages frozen broccoli spears cooked and drained OR
2 10-ounce packages frozen asparagus spears cooked and drained
10 to 12 slices cooked turkey or chicken (2 whole chicken breasts stewed about 30 minutes (or until tender) and cooled will cut about 10 to 12 thin slices)
About 3 cups cream sauce tastefully seasoned (some curry, if desired) OR
3 cups thinned condensed cream of chicken soup
1 cup shredded Cheddar cheese
1 pound mushrooms sliced and sauteed in butter or 2 cans mushrooms drained and sliced
2 pimientos cut in strips

Arrange asparagus or broccoli spears crosswise, alternating tips, in bottom of lightly greased shallow baking dish about 13x9x2 inches. Heat cream sauce or thinned condensed soup to boiling and stir in cheese until melted. Pour half this sauce over vegetable, leaving tips visible. Arrange turkey or chicken slices over vegetables, scatter mushrooms over top and cover with remaining sauce. Garnish with pimiento strips. About 25 minutes before serving time bake in a hot oven (425°) until lightly browned. Garnish with spiced peaches or apricots. Serves 4 to 6.

Note: Instead of turkey or chicken slices, you may use 2 cups diced cooked poultry. Also, if desired, make your cream sauce with half or all chicken broth, or half milk and half cream.

CHOW MEIN

2 cups (about 1 pound) of fresh pork, white meat of chicken, lobster, or crab meat cut in strips, or whole fresh shrimp
4 tablespoons butter
1 cup finely chopped or sliced onions OR 3 to 4 tablespoons instant minced onion
1 teaspoon salt
⅛ teaspoon pepper
2 cups celery cut in thin slices or in 1-inch long thin strips
2 cups chicken broth or 2 cups water and 2 chicken bouillon cubes
1 pound can fancy Mixed Chinese vegetables
1 small can sliced mushrooms
Whole walnuts

Sear meat or fish in hot butter, add the onions and cook 5 minutes. Add celery, salt, pepper, and broth. Cover and cook about 5 minutes or until celery is almost tender. Add the drained Chinese vegetables and mushrooms. Mix well and return to boiling point. Combine and stir into the boiling mixture 2 tablespoons cold water, 2 tablespoons cornstarch, 2 teaspoons Soy Sauce, and 1 teaspoon sugar and boil for 1 minute. Place in a lightly greased 2-quart casserole and bake in a moderate oven (350°) about 20 to 30 minutes or until heated through. At serving time, garnish casserole with whole walnuts fried in salad oil or butter for 1 minute. You will need 2 3-ounce cans of Chow Mein noodles over which to serve the Chow Mein. Serves about 6.

PORK CHOP MEDLEY

4 end-cut pork chops or pork shoulder steaks (you may use loin or rib chops, if desired)
3 tablespoons currant jelly
2-3 tablespoons prepared mustard
4 or 5 fresh apples peeled and sliced thick OR
1 can apple slices
4 cooked sweet potatoes sliced thick
⅓ cup seedless raisins
⅓ cup brown sugar
⅛ teaspoon nutmeg
1 teaspoon salt
⅛ teaspoon pepper

Mix jelly and mustard until smooth and spread on both sides of meat. Place apple slices in both ends of a long baking dish (about 13x9x2 inches). Place potato slices in center of dish. Scatter raisins and sprinkle sugar and nutmeg over the top. Lay meat on top of fruit and sprinkle with salt and pepper. Cover casserole tightly with foil and bake in a moderate oven (350°) for 1 hour. Uncover and continue baking ½ hour longer or until meat is tender. Serves 4.



—Photo: American Meat Institute

Pork chops, sweet potatoes, and apples are a wonderful combination at any time. Try this slightly different casserole dish, and we'll bet you repeat it often.



Five herbs are combined with salmon, noodles, and cheese to make the delicious main dish pictured above.

—Photo: General Mills

HERBED SALMON NOODLE CASSEROLE

1 8-ounce package fine noodles cooked
¼ cup butter
¼ cup flour
½ teaspoon EACH thyme, basil, savory, parsley, chives or onions (or your choice of mixed herbs)
1 teaspoon salt
Dash pepper
2 cups milk
2 cups grated Cheddar cheese
1 7-ounce can salmon, broken in large pieces

Melt butter, blend in flour and seasonings. Stir in milk gradually, bring to a boil, stirring constantly, and boil 1 minute. Remove from heat and blend in cheese, reserving ¼ cup for topping, and stir until melted. Combine noodles, salmon, and herbed cream sauce and pour into a lightly greased 1½ quart baking dish. Top with reserved grated cheese. Garnish as desired. Serves 4 to 6.

Note: You may use 4 sliced hard cooked eggs or 1 small can tuna or 1 to 1½ cups of any desired ground meat or fish in place of the salmon.

CHICKEN-HAM CASSEROLE

Cooked meat from medium sized fowl, cut in medium sized pieces
½ pound medium broad noodles cooked
2 cups cooked ham cubes
1 pound mushrooms sliced and fried in butter OR
2 cans sliced mushrooms
1 package frozen peas, cooked and drained
About 4 cups rich chicken gravy or condensed cream of chicken soup, thinned to medium consistency

Combine chicken, noodles, ham, peas, mushrooms, and gravy or thinned condensed soup. Place in lightly greased 2-quart casserole and heat in a moderate oven (350°) about 20 to 30 minutes. When removing from oven sprinkle top with toasted slivered blanched almonds. Serves 10 to 12.

IRENE'S LASAGNA

1 8-ounce package wide (lasagna) noodles cooked
1½ pounds ground beef
1 to 2 tablespoons butter
2 8-ounce cans tomato sauce
1 cup cottage cheese
8 ounces cream cheese
¼ cup thick sour cream
⅓ cup chopped onions
1 tablespoon chopped green pepper

Break up ground beef with a fork and cook for a few minutes in the butter. Blend in the tomato sauce. Combine the cottage cheese, cream cheese, and sour cream, onion and green pepper. Place half the cooked noodles in a lightly greased 2-quart casserole. Spread over this layer the cheese mixture. Top with remainder of the noodles. Then cover with the meat mixture. Bake in a moderate oven (350°) 20 to 30 minutes. Serves 8 to 10.

SCALLOPINE OF VEAL

2½ pounds shoulder of veal cut in pieces as for stew
½ cup flour
½ teaspoon salt
⅛ teaspoon pepper
1 teaspoon paprika
6 tablespoons salad oil
2 medium minced onions or 1 clove garlic
1 cup sliced cooked mushrooms
Salt and pepper
1¼ cups hot water
1¼ cups strained canned tomatoes

Place pieces of meat in a brown bag with the flour, salt, pepper, and paprika and shake bag to coat meat completely. Saute with the minced onion or garlic in the salad oil until golden brown on all sides. Place in a 2-quart casserole, add the mushrooms, sprinkle with salt and pepper, add water and tomatoes. Bake 20 to 30 minutes in a slow moderate oven (325°). Serve over rice which may be cooked in oven along with meat.

To oven cook rice, place in a 2-quart casserole 1 cup long grain rice, 1 teaspoon salt, 2 tablespoons butter, and 2¼ cups boiling water. Cover tightly and bake about 45 minutes or until tender. (Place rice in oven 15 minutes ahead of the veal dish.) Stir once during the baking. Serves 6.

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BREADWINNER *Makes 2 loaves*

½ cup very warm water
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1½ cups warm water
¼ cup sugar
1 tablespoon salt
3 eggs
¼ cup Fleischmann's Margarine
7¼ to 7½ cups sifted flour
melted margarine
1 egg yolk
sesame seeds

Measure ½ cup very warm water into large bowl. Sprinkle in Fleischmann's Yeast; stir until dissolved. Stir in 1½ cups warm water, sugar, salt, eggs, Fleischmann's Margarine and half the flour. Mix until smooth. Add enough flour to make soft dough. Turn onto lightly floured board. Knead until smooth and elastic. Place in greased bowl. Brush with melted margarine. Cover; let rise in warm place, free from draft, until doubled, about 1 hour. Knead down. Divide dough in half. Roll out one part into a rectangle 12 inches long. Cut off ⅔ and slice into 3 strips. Braid the 3 strips. Divide the third slice into 3 parts and braid. Place small braid on top of larger braid. Work ends together. Repeat process with the other half of dough. Let rise uncovered, in warm place, free from draft until doubled. Brush lightly with egg glaze (one egg yolk beaten with 2 tablespoons cold water). Sprinkle with sesame seeds. Bake at 425° F. for 25 to 30 minutes.



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Rural Women Meet In Albany

By AUGUSTA CHAPMAN, *Home Editor*

I'M back at my desk, after a very interesting and profitable visit to Albany, N. Y., with the New York State Council of Rural Women. In case you are not familiar with this group, it is composed of twelve key leaders representing 112,000 women of four member organizations — the Grange, the Federation of Home Bureaus, the Dairymen's League, and the Rural Division of the New York State Council of Churches. The purpose of the Council is to help rural women of the State work together on matters affecting our families and communities.

Officers of the Council for 1962 are Miss Evelyn R. Hodgdon, R.D. 1, Oneonta, N. Y. (Rural Church Institute), president; Mrs. Vertrees Ackerly, R.D. 2, Middletown, N. Y. (Home Bureau), vice-president; Mrs. Charles Scofield, Otego, N. Y. (Grange), secretary-treasurer.

I wish that I had space to tell you all of the worthwhile activities we packed into the two and a half days in Albany, but will be able to mention only a few. We visited the State Senate as guests of Senator and Mrs. Dutton S. Peterson, and were graciously received in Mr. Peterson's office, where he answered our questions concerning the workings of the Senate. As this was my first visit, I was a trifle disappointed that only two non-controversial bills were quickly whisked through, along with the routine confirmation of various appointments. I had hoped for a little more excitement!

We heard Governor Rockefeller address the Joint Women's Legislative Forum and spent an afternoon with Commissioner Don J. Wickham and his staff in the Department of Agriculture and Marketing. The Governor also spoke at the annual dinner of the New York State Agricultural Society and presented citations to four Century Farm families —the Robens Family of Herkimer County, the Hudson Family of Seneca County, the Stacy Family of St. Lawrence County, and the Lawrence Family of Broome County. I was especially interested in this part of the program, for in 1960 my sister and brother-in-law's farm, the Todd farm in Tompkins County, had been so honored.

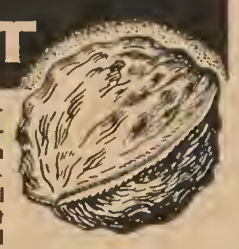
Miss Florence A. Louth, Director of Women's Activities for the State Civil Defense Commission, gave us definite, practical information concerning fallout protection. I have been quite discouraged and concerned by the conflicting reports going out from various agencies and individuals on this most important subject. After talking with Miss Louth, I feel much encouraged with our chances of surviving a nuclear attack if we face facts and prepare NOW for what we hope will never happen.

I urge every one of you to read all the information available on this subject and to think the issue through clearly and sensibly. The following booklets are available from your Civil Defense Office or by writing to Miss Louth at 162 Washington Ave., Albany 1, N. Y.:

Survivol In A Nuclear Attock
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Also, a new booklet, "Fallout Protection" is available without charge from your local post office.

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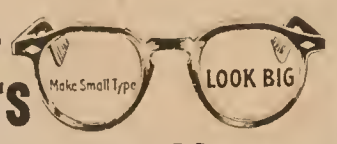
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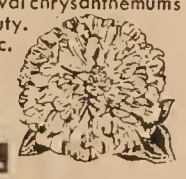
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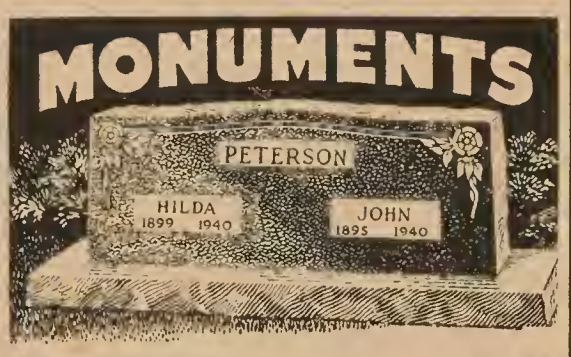
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You Can Grow HOUSE PLANTS

By NENETZIN R. WHITE

YES, everybody can grow house plants. I won't say that you can successfully grow any kind of plant in your particular situation, but you can come mighty close.

The three easiest groups of plants to grow are desert plants, including Cacti, which require just a sunny window and will stand the dry atmosphere of most of our homes; shiny, thick-leaved plants or succulents, such as jade plant, sedums, rubber plants, etc., and hairy-leaved plants as African violets or gloxinias. All of these plants will stand considerable dryness, as loss of moisture is prevented by their thick and hardened or hairy skins.

It would be too bad to have to limit ourselves to these few groups of plants, and fortunately it isn't necessary. My favorite house plant story is of friends in a very normal home who grow the most fantastically beautiful orchids that I have ever seen, so you see, it can be done!

Let's stop and think what house plants require—good soil (with food and nutrients), sunshine, and moisture (really humidity). Do you remember your grandmother's windows just full of lovely foliage and blossoms? Do you also remember the good old range with the teakettle singing (not whistling) and a pot of soup bubbling? Often a reservoir on the back of the range was also vaporizing water into the air. Here, your grandmother was satisfying her plants' humidity requirements, which is the hardest one to meet. Now, I don't recommend that we put ranges back in our homes, but we should make every effort to give our plants the vital moisture needed in the air.

Start by checking the humidifier on your furnace, for it can get out of order. Have it set as high as is practical. Incidentally, you'll find that you are more comfortable, have fewer colds, and can keep the temperature at a lower level if there is good humidity in your home. Proper humidity also will prevent cracking wallpaper, loose chair dowels, wood furniture checking, floor warping and such. Proper humidity is not only vital to plants, but it's better for you also.

Next, if possible, put trays of pebbles and water under your plants. Use a sprayer or clothes sprinkler to spray the foliage daily. Clay pots will let moisture through, and they are usually better than non-porous containers. If you are using other containers, put two or three inches of coarse gravel or broken clay pots in the bottom. Lastly, incorporate peat moss or vermiculite in your potting mixture, for this helps hold moisture.

Potting mixtures can be made by using two parts good garden soil and one part peat or vermiculite. Add one cup of bone meal to each half bushel of this mixture. Commercial potting mixtures are usually good, and I add a little peat moss to these. (I like the complete ones that are water soluble.) Most plants benefit from some fertilizer every two to three weeks.

The amount of water that you give your plants will vary with the requirements of the plant and the amount of moisture in the air. It is generally better to use water at room temperature. If you lack adequate sunlight, use a couple of pink fluorescent tubes two to three feet from the plants. When you try a new plant, look up its requirements and do your best to meet these.

VALENTINE

By Alma Robison Higbee

I would make a valentine for you,
Of happy things on memory's screen:
A day we shared when skies were blue
As flax bloom and the hills were green.

Or I would frame a fireside's glow,
A book that once you shared with me,
To remind you of an early snow
When we laughed and shared a cup of tea.

I cannot write the words I know,
Nor send beribboned cards, you see;
For only stars, and winds that blow
Could tell how much you mean to me.

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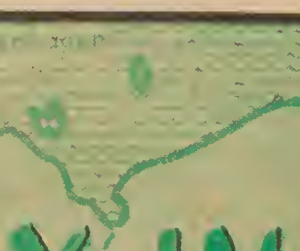
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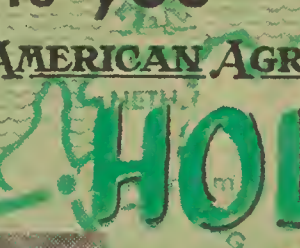




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Ed Eastman's Page

How Chickens (The Feathered Kind) Went To College

ONE OF THE most interesting and finest friends I ever had was the late Professor James E. Rice of Cornell. I remember him for many reasons, but mostly because he was the most enthusiastic man I have ever known, and because he gained worldwide fame for his contribution in putting poultry husbandry on a scientific and businesslike basis.

To get some understanding of what Jimmy did, you only have to remember what the poultry business was—or rather what it was not — when I was a boy on the home farm fifty years ago.

On almost every farm there was a small flock of hens. The poor creatures were all humped up and half frozen in the drafty henhouses in the winter, and lousy in the summertime. In winter, most of their ration was shelled corn — or even on the cob. In summer, the hens scrounged for their living in the garden and on the farm manure piles. Dad hated the hens and wanted no part of them, for one reason because they were forever roosting on and daubing up the farm machinery in the barns and sheds.

So, what little care the hens got Mother gave. In the spring she replenished her flock with chickens hatched by an old biddy and raised in the small A-coops. Remember how she (the hen, not Mother!) ran grumbling and clucking around followed by a few little chicks? What few eggs the hens laid Mother traded for a little "pin money."

I often wonder how city consumers ever managed to eat those awful eggs. They were gathered no more than once a day, and not always then, especially when the old hen "stole her nest" in the haymow or tall weeds. It was fun to hunt those stolen nests, and what a gold mine it was when you found ten or twelve eggs in one, even if the first ones had been laid weeks before! We always shook each egg, and if the insides didn't rattle too much they went to the groceryman. He would hold them several days in the warm store, then when he got a large enough shipment he shipped them in warm cars to the wholesaler, who in turn passed them on to the retailer. Finally, at long last, the eggs arrived on the consumer's table. Wow!

Then, lo and behold, the whole poultry husbandry business and marketing methods began quickly to change—all in one lifetime! It isn't necessary to mention here all of those changes, because you know them. It is sufficient to say that modern poultry husbandry and marketing are now highly specialized skills; the small flocks have mostly disappeared from the farms; the birds are housed by the thousands in comfortable buildings, where feeding, watering, and gathering of eggs are largely automatic. The eggs themselves are gathered frequently, graded, cooled and shipped, and kept under refrigeration until they reach the consumer.

More than anyone else, Professor Rice was responsible for this change. And how he got started is an interesting story. It was first told by Isaac Phillips Roberts, first Dean of the College of Agriculture at Cornell University, in his book, **Autobiography of a Farm Boy,** published by Cornell University Press.

Everything was new at the College and Dean Roberts was having a very hard time getting anybody to believe in agricultural education. About 1888, a young student at the college came to Roberts and said:

"Why don't we have a Poultry Department?"

Bothered with many problems, Roberts didn't want any more, and replied sharply that he didn't know anything about the chicken business; that he had seen so many persons go through the "chicken fever" and come out looking like a "moulting hen setting on one egg."

The young student was James Rice, then a sophomore. He told Roberts that he knew something about the chicken business even if the Dean didn't, and he would like to try his hand at it. Moreover, he said, poultry husbandry was going to be an important part of farming and it ought to be taught at the College. With tremendous enthusiasm Rice outlined to the Dean ways in which the College might get started in teaching poultry husbandry.

Enthusiasm backed by knowledge is hard to resist, so Dean Roberts, a great pioneer himself, soon became interested. He told the young man that they would build, with their own hands, a little chicken house out of refuse lumber so it wouldn't cost much of anything.

"But," he added, "after it is built, if you let that poultry house become disreputable like so many others, I'll turn out the hens and burn the house down, lice and all!"

With this small beginning Jimmy Rice experimented. The Dean's interest continued, and he helped Jimmy build some more houses out of old lumber. Later it was found that Jimmy not only knew more about poultry than anyone else, but also had the ability to state what he knew so clearly and forcibly that he could convince others, just as he had convinced Dean Roberts.

Thus, James Rice became one of the early lecturers on poultry at Farmers' Institutes, finally became the head of the large Poultry Department at Cornell, and a pioneer leader in laying the foundations of the great poultry industry as it is today.



Fifty years ago Mother and "Old Biddy" raised their chicks the hard way. From a setting of 13 eggs, it was good if ten hatched and six lived.



A FAR CRY FROM "OLD BIDDY."

Of all the marvelous changes that have taken place in farming in one lifetime, nothing else excels the progress that has been made in poultry husbandry, and the late Professor James Rice of Cornell started much of it.

APPLES ARE GOOD MEDICINE

BEFORE modern fruit diseases and insects made it impossible to grow good apples without spraying, there was an apple orchard on the majority of eastern farms.

When I was a boy it was fun to suck cider through the bunghole in the barrel before the cider got too hard. It was also fun to go down cellar and get a pan full of apples to eat during the long winter evenings. One trouble, though, was that since the outside cellar walls had been banked with straw or horse manure to keep out the cold it was stone dark in the cellar—and a young feller had to watch out or a Great Big Something would grab him if he turned his back! Another problem was that Ma would always tell me to pick out the partly decayed apples to eat first.

However, we and our neighbors seldom had any sickness, and I believe that eating lots of apples every day was and is the reason.

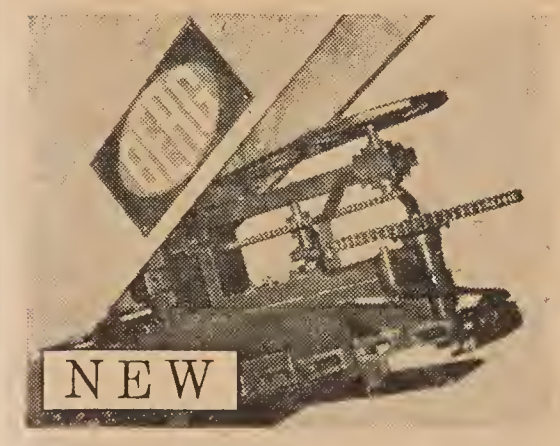
That belief is now confirmed by a careful 3-year study of the effect of eating apples by 1300 volunteer students at Michigan State University. There were one-third fewer cases of colds and other respiratory infections among the apple eaters than in the student body as a whole. And the whole general health of the students who ate apples was better.

EASTMAN'S CHESTNUT

THE stranger walked briskly into the farmyard and said, "I'm a government inspector and I am here to inspect your farm to see that you're obeying all the laws and regulations. Here's my card."

"All right," said the farmer, "go right ahead and inspect."

A little while later the farmer heard yells and screams from his nearby pasture. Rushing down to the fence he found the inspector going around and around the lot with a big bull a close second behind him. Watching the race with some satisfaction for a moment, the farmer finally yelled, "Show him your card, mister, show him your card!"



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Mr. John Meeder, Ripley (refund on parts)	12.50
Mr. James Wood, Wappingers Falls (refund on plants)	5.70
Mr. William A. Wilson, Cazenovia (refund on order)	4.00
Mr. Richard Keefer, Copenhagen (refund on shoes)	15.95
Mrs. Joseph Burgher, Krumville (refund on uniform)	11.99
Mr. Robert Robinson, Barker (refund on charm)	4.95
Mr. Earl K. Cobb, Ithaca (refund on wheels)	12.00
Mr. Webster Bodine, Clarence (ins. settlement)	85.74
Mr. Daniel Lehman, Lowville (refund on tractor parts)	30.50
Mr. Leon Tremaine, Oswego (payment for coal)	125.00
PENNSYLVANIA	
Mr. Ralph Matter, Jr., Covington (refund on generator)	60.00
NEW JERSEY	
Mr. Phil Gardiner, Mullica Hill (payment on acc't)	20.00
MAINE	
Miss Ruth Harding, North Anson (refund on shakers)	3.00
Miss W. E. Farnsworth, E. Poland (refund on subs.)	2.00
NEW HAMPSHIRE	
Mr. Alphonse Wuytack, Manchester (payment on acc't)	50.00
Mr. Howard Mooney, Littleton (ins. settlement)	57.32
VERMONT	
Mr. Frank W. Miller, Hartland (refund on plate)	30.00
FLORIDA	
Mr. Clarence Gillies, St. Petershurg (refund on order)	7.19

CAN YOU HELP?

Mrs. R. J. Minott, 847 Bernardston Rd., Greenfield, Mass. would like the words to the poem which ends: "You silly thing," the robin said. "I think you must be crazy. You'd better be your own sweet self, Than any made-up daisy."

If you have a copy of "The Story of Lizzie Borden," also known as "The Fall River Legend," by Edwin Pearson, please write to Mrs. Helen L. Currier, Nye's Corner, Fairfield, Me.

"The firefly is a brilliant thing,
But it hasn't any mind.
It goes a-tearing on through life
With its head-light on behind."

If you know the author, will you write Mrs. Floyd D. Goodman of Clifton Springs, N. Y.?

Mr. William Morrison, R.D. 2, Greenwich, N. Y., wrote Leavitts Mfg. Co., Tuscola, Ill. for new blades for his cow dehorners, but his letter was returned marked "unknown." If you know anything about this company, won't you write Mr. Morrison?

If you know the poem or essay "I Am The United States" please send a copy to Mr. Clarence Friot, Heuvelton, N. Y.

WE GOOFED!

In our December issue, under the heading of "Personal Farm Experience," the editors made an error in the item entitled "Corn for 16 years." One of our subscribers called this to our attention but did not give us a return address in her letter.

The mistake concerned a statement that Mr. Stark planted a cover crop of rye at the rate of 4 pounds per acre. The correct figure was 3-4 bushels per acre.



While grinding grain at Martin Holmes' Barn the machine broke down. Mr. Holmes helped to repair it. As he fed the chain drive back over the sprocket the operator slowly started the power drive. A sudden jerk of the chain yanked Mr. Holmes' hand into the toothed gears. His fingers and hand were badly mangled—surgery saved three fingers.



Local agent Frank Pine of Fultonville, N. Y. delivered $1244.28 check to Mr. Martin Holmes at his farm near Sharon Springs, N. Y. Satisfied, Mr. Holmes said, **"for little all this protection cost, I can't afford to be without it."** Payment was made from three North American policies.

Series 505R and 501

Weekly disability and medical benefits $ 244.28

Series ME26A

Medical Expense benefits 1000.00

Total $1244.28

A friend's name may be in this list of claims paid.

Richard A. Zilker, Fillmore, N. Y. — Kicked by cow—broke leg	$ 315.72
Archer A. Wright, Randolph, N. Y. — Fall from hay mow, fractured ankle	605.00
Milan R. Tucker, Auburn, N. Y. — Fell in chicken house—severe back injury	899.01
Vivian M. Peterson, Ashville, N. Y. — Slipped on ice—broke arm	442.76
Franklin S. Parrott, Cayuta, N. Y. — Auto accident—back injury	171.43
Arthur Morgan, Cincinnatus, N. Y. — Auto accident—broke jaw, cuts & bruises	439.65
Herman Kelpatriek, Walton, N. Y. — Bumped elbow while driving tractor	251.17
Paul Rigoni, Pavilion, N. Y. — Gored by cow—bruised chest wall	120.71
George A. Horigan, W. Winfield, N. Y. — Auto accident—injured head & ankle	124.01
Lorenzo Martin, Theresa, N. Y. — Tractor accident—injured skull, jaw, eye & chest	440.37
Norman Lehman, Castorland, N. Y. — Fell on ice, injured knee	445.14
Frederiek Cordell, Canastota, N. Y. — Injured arm in field chopper	550.14
Kenneth E. Johnson, St. Johnsville, N. Y. — Kicked by cow—injured back	274.64
Gerald A. Sholtz, Verona, N. Y. — Hitch dropped on ankle—fractured heel	105.71
Roy Outhouse, Canandaigua, N. Y. — Auto accident—injured chest, lung	503.00
Arthur Strait, New Hampton, N. Y. — Injured by cow—bruised left knee & sprained back	550.00
Elsie E. Savory, Kent, N. Y. — Hit by auto—injured ankle, back bruises	303.41
Walter Law, Oneonta, N. Y. — Hit by feed cart handle—internal injuries	430.25
Harold Willard, Chase Mills, N. Y. — Tractor overturned—bruised back, shoulder, neck	207.86
David Camphell, Rexville, N. Y. — Auto accident—cracked jaw, scraped arm & bruises	217.36
Florence M. Hallock, Riverhead, N. Y. — Fell on driveway—fractured hip	1112.86
Michael O'Krepki, Berkshire, N. Y. — Crushed by colt—injured back, hip, leg	265.70
Foster D. English, Ithaca, N. Y. — Kicked by cow—injured knee, thigh	288.75
Carrie Sherman, Wolcott, N. Y. — Tripped over hassock—fractured rib	100.00
King Leonard, Gillett, Pa. — Kicked by cow, back injury	294.00
Ross Cummings, Knoxville, Pa. — Crushed by cow—injured arm	336.28
Douglas Zee, Richwood, N. J. — Chemical splashed face & eyes—severe burns	563.80
John E. Enders, Cranbury, N. J. — Slipped on ice—fractured rib	132.84
Roland Coleman, Elmer, N. J. — Truck accident—fractured vertebrae	825.00
Clifton Arnott, Jr., Sussex, N. J. — Truck accident—injured collarbone	285.00

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*According to a National Market Survey tabulated and audited by Certified Public Accountants. Name furnished on request.

This past summer we mailed a survey to thousands of Maes users coast to coast, small and large herd owners, asking them for their opinions of our products—good or bad. Their reports have amazed even us.

For example, 8 out of 10 Maes users reported that Maes inflations cut their milking time. Their average time savings was about 20 minutes per day or 117 hours per year. The average Maes user figured his time was worth $1.68 per hour. Multiplied by 117 hours, this amounts to $196 in labor savings alone per year.

Also 8 out of 10 Maes users reported Mastitis treatment and medication expense was reduced as a result of using Maes inflations—2 out of 3 reported livestock losses were reduced by using Maes. Also 2 out of 3 dairymen reported increased herd production due to Maes.

With savings like these it's no wonder more than 50,000 dairymen have switched to Maes since 1959—it's just good business! Also, it's no wonder Maes Inflations are the most-copied inflations ever designed. Write for "The Survey that Rocked the Dairy World"—and Free Maes Catalog!

SEE YOUR Maes DEALER TODAY

If None Near Order Direct!



AVERAGE YEARLY SAVINGS as reported by Maes users!

(MANY SAVED SEVERAL TIMES AS MUCH)

1	Labor and Time Savings	$196
2	Reduced Mastitis Medication Costs	$ 47
3	Reduced Livestock Losses	$120
4	Increased Herd Production	$124
	TOTAL AVERAGE SAVINGS PER DAIRYMAN PER YEAR:	$487

(The average Maes user reported he milked 33 cows—a savings of $14.75 per cow per year!)

NEW!

MAES INFLATIONS FOR ALL MAJOR MILKERS

To satisfy the skyrocketing demand for superior quality Maes products, we announce a complete line of Inflations and Dairy Supplies for all major milkers such as:

★ SURGE ★ DE LAVAL ★ CHORE BOY ★ UNIVERSAL ★ RITEWAY ★ HINMAN ★ CONDE ★ PERFECTION

. . . and others—see Coupon!

Maes

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A FEW MORE DEALERS WANTED—WRITE ON LETTERHEAD!

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Quantity		Each	Total
_____	Narrow-Bore	.95	_____
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Please check choice ☐ Black synthetic rubber ☐ Brown natural rubber

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Quantity		Each	Total
_____	Style U(Medium type) (Fits most present Universal Shells)	.95	_____
_____	Style U Narrow-Bore	.95	_____

Please check choice (Fits latest Universal Shell only) ☐ Black synthetic rubber ☐ Brown natural rubber

MAES INFLATIONS FOR SEARS, RITEWAY, PERFECTION, WARDS, ANDERSON, OTHERS.

Quantity		Each	Total
_____	Style S(Medium type)	.95	_____

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Postage on orders less than $10 .50 _____

COLUMN 1 TOTAL $_____

MAES INFLATIONS FOR SURGE Black Synthetic Rubber

Quantity		Each	Total
_____	NARROW BORE	.85	_____
_____	MEDIUM BORE	.85	_____
_____	LARGE	.85	_____

Brown Natural Rubber

_____	NARROW BORE	.85	_____
_____	MEDIUM BORE	.85	_____
_____	LARGE	.85	_____

MAES INFLATIONS FOR DE LAVAL

Quantity		Each	Total
_____	Style D Narrow-Bore	.95	_____
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Quantity		Each	Total
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ROCKLAND, United Co-op Farmers, Inc.
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WATERVILLE, J. E. McCormick & Sons

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NORTH ADAMS, Cliff George
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NEW JERSEY

ELMER, Alvin C. Crispin
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AFTON, Les Cutting
ALBION, Ralston Purina Company
ALTAMONT, Howard L. Gage
AMSTERDAM, Florida Implement Co., Inc.
ARCADE, Leonard Bixby
ATTICA, Ralph Mucher
AVON, Welch Dairy Supply
BELLEVILLE, Carl Cobb Farm Supply
BERNE, Frank Hart & Son G.L.F.
BINGHAMTON, Checkerboard Feed Store
BOUCKVILLE, Bouckville Feed Mill
CANANDAIGUA, Joe Valvano's Dairy Supply
CANDOR, Ward & Van Scoy's
CANTON, Wight & Patterson
CASTORLAND, Newton H. Mellnitz
CATO, Robert Dudley
CATTARAUGUS, James H. Gray Milling Co.
CAZENOVIA, Cazenovia Feed Supply
CHATHAM CENTER, Edward Ostrowski
CHERRY CREEK, Glenn Scott
CHITTENANGO, Brown's Service
CLAYTON, Emery Dairy Equipment
CLINTON, Clinton Farm Supply
CLYDE, A. R. Ketchum & Sons
COBLESKILL, Schoharie Co. Co-op Dairies
COLLINS, James H. Gray Milling Co.
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CORTLAND, Cortland Co-op. G.L.F. Service, Inc.
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FRANKLINVILLE, James H. Gray Milling Co.
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ROME, George B. Harvey Feed Store
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SANBORN, Sanborn Milling Co.
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WATERTOWN, L. M. Allen Dairy Supply
WATKINS GLEN, Fiorlat Dairy Products Corp.
WEST EDMESTON, Roberts Farm Supply
WHITNEY POINT, Whitney Point Tractor, Inc.
WILLIAMSON, Farmers Feed & Grain
WINDSOR, Windsor Hardware
YORK, William Johnson

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KINGSLEY, Ross Brothers
LAKE ARIEL, Cobb Farm Supply
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MEHOOPANY, Day's Hardware
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NICHOLSON, Pine Grove Store
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SPARTANSBURG, Raymond Straite
STARRUCCA, Starrucca Garage
TROY, Austin L. Wallace
WAYMART, Raymond Coons

RHODE ISLAND

PROVIDENCE, Arlington Grain Co.

VERMONT

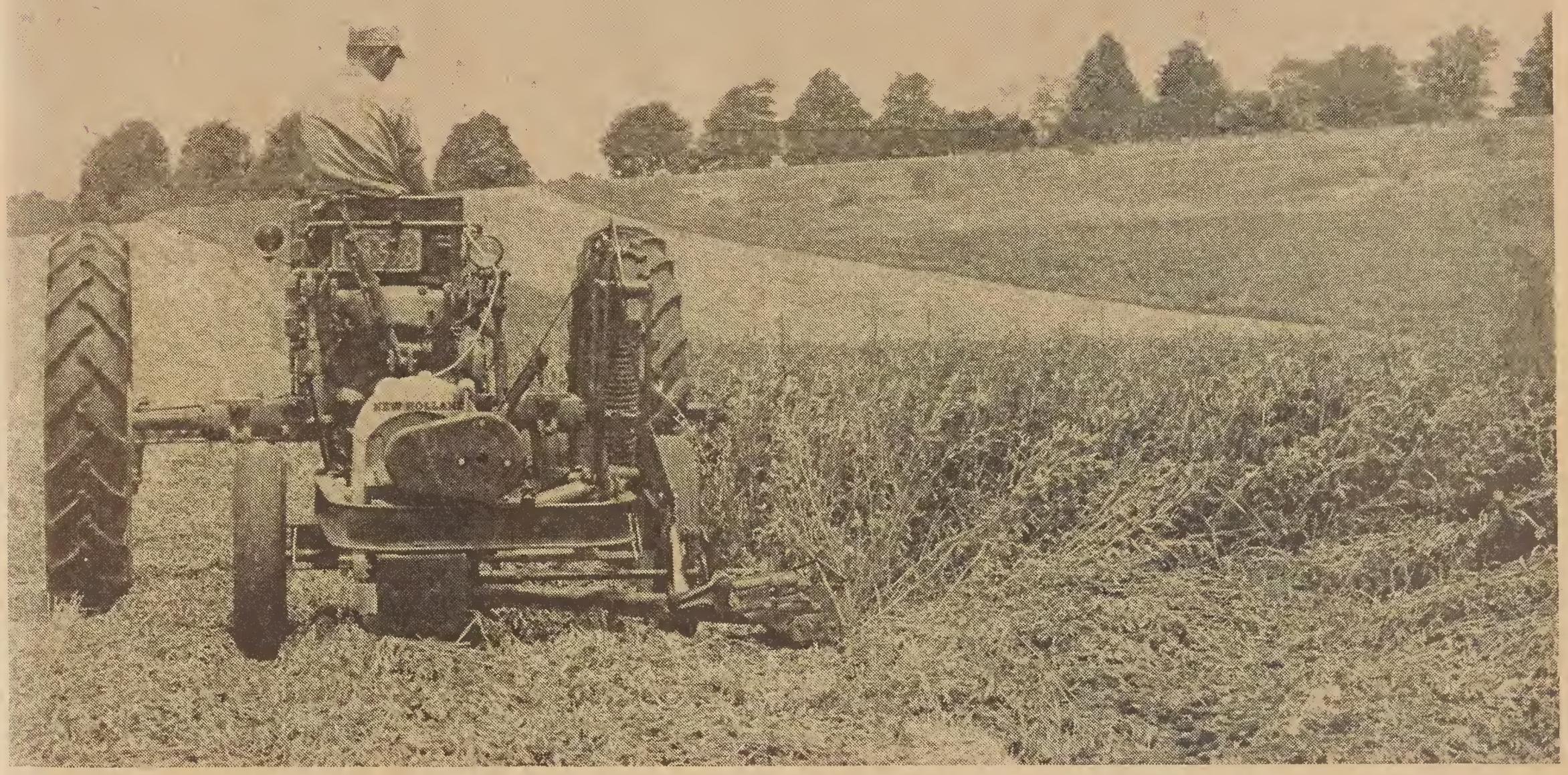
BRADFORD, Ralston Purina Company
CHELSEA, Whitney & Lyman
ESSEX JUNCTION, Mainline Tractor & Equipment Company
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AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

MARCH 1962



When it comes to those whopper hay crops, are you . . .

Cuttin' or Cussin'?

By BURTON S. HORNE*

HEAVILY fertilized, early-cut forage crops will produce extremely high yields and high quality. This has been successfully proved by hundreds of dairymen who have grown, cured and fed these forages. Their success, however, does not mean that there are no problems with heavy hay crops. The big problem that rears its ugly head wherever heavily fertilized grasses and legumes are grown is the difficulty of cutting them with conventional mowers.

How high are the high yields we are talking about? We are talking of first cut yields that have reached nearly 3,000 pounds of dry matter per acre. This is more than double normal yields, and, I would venture to guess, more than double the usual cutting problems.

The efficiency of a conventional sickle bar mower equipped with regular guards is lowered by frequent stops caused by clogging or plugging of the cutter bar. How often is "frequent?" Well, sixteen stops in two rounds of mowing around a 1½ acre rectangular field of orchard grass is, in the words of one Pennsylvania farmer, "frequent enough!"

From New Jersey researchers comes the written report of cutting trials in a four acre timothy field treated with two levels of nitrogen. High yields? You bet! The low level nitrogen treatment yielded 9.6 tons of green weight per acre at 70.8% moisture, which calculates to be 2.7 tons of dry matter per acre. The higher level treatment yielded 10.8 tons of green weight at 74.2% moisture, or 2.8 tons of dry matter per acre. Any cutting problems? "You betch 'ur life" there were!

On the first round, a conventional, high-speed sickle bar mower equipped with regular guards mowed 300 feet and then plugged tighter than a drum. The cutter bar was cleaned and travel resumed—another 200 feet and another plugging. Another cleaning and 20 more feet of cutting were added before plugging again. The round was never completed!

Some adjustments were made on the mower,

(Continued on Page 47)

*Agricultural Engineer, Pennsylvania State University, University Park, Pa.

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Back In Town–The Super Savings Sale Thousands Will Remember From Last Year



2ND ANNUAL

MARCH OF VALUES

MARCH 7 THRU 24

More than 25 Value Leaders—priced below regular wholesale (not simply under the retail price but BELOW OUR USUAL COST!) ¶ Watch for our big Advertising Mailer! It's time to get ready for Spring and Summer—and GLF, as always, is here to really help. First with a 16-day sale that offers deep-cut prices on more than two dozen wanted commodities. Second, with the presentation of scores of items for your home, your farm, your car—the newest in design and quality, the best in value. On these two pages we list some of the outstanding bargains offered. Coming to you in a day or so is an eight page advertising folder, giving further details of the special savings and listing almost a hundred regular GLF commodities, ready for your selection right now. Here again is proof that GLF is devoted to Good Bargains, Good Living and Good Profits for the people it serves.

DON'T MISS THESE TWO!

STORM-SCREEN COMBINATION DOOR

$24.95

REG. $39.75

Full 1 in. thick—made of Alcoa Aluminum. Pre-hung for easy installation. Sizes 32" x 80" and 36" x 80" stocked. Other sizes up to 36" x 84" available at same price.

FAMOUS JACUZZI SHALLOW-WELL PUMP

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A complete water system (except for pipe) . . . all above ground. Includes 1/2 H.P. motor. Perfect for camps, cottages or field installations. 96-0310

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"KEEPER" Horse and Pony Feed
"EARLY BIRD"....Chick Starter
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High Quality Milk Replacer

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Per 25 lb. bag

To get these discounts . . . Simply select your feed, sign a Verification Form and your saleslip will be discounted on the spot.

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$55.95

plus tax

Special tread really **digs** . . . pulls harder. Resists all barnyard acids. Size: 11/12.4 x 28.
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Powercruiser Tubeless Tire

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plus tax

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24-0435

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TRI-RIB provides accurate steering in all soils. Safer on slopes. 4 ply; NYLON; size 6:00 x 16.
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Reg. $17.95

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FT 100. Housed in a shock-proof case with heavy post construction. 3 yr. guarantee. Replace old batteries now! 29-0201

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15 cu. ft. capacity. Fibre glass insulation. Full interior lighting. Many other quality features.

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Leveling legs. 3 in. fibre glass insulation. Crisper bin. BIG door shelves. Thermostat for 8 settings. Many other quality features.

12/2 Romex Wire With Ground

250 ft. coil

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Reg. $13.45

NEW thermoplastic coating resists most oils, acids, grease, gasoline. Ideal for interior wiring. UL approved. 93-0005

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Reg. $3.65

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New look, new life for weathered asphalt roofs. Reinforced with asbestos fibres. 5 gals. covers up to 500 sq. ft. 65-1260

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5 gals.

Resists hot sun, frost, water and many acids. 1 gal. covers 50 to 100 sq. ft. 65-1262

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Sits 8⅝" at low; with extension screw raises to 18½". 12¾" handle for best leverage.
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Corrosion-free glass tank; extra thick fibre glass insulation. 10 year warranty. 91-0067

ALL-STEEL FARM GATE

Reg. $25.95

$21.95

Rugged, weather-proof, 24 gauge, galvanized steel. 14 ft. long by 52 in. high. 5-panel design. 69-0932

PERFECTION VACUUM PUMP

Reg. $149.50

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with trade-in

No. 4 rated at 9 c.f.m., or up to 3 units. Complete with 12 gal. tank and ½ H.P. motor.

GLF Model 80 Clear-Span

WELDWOOD BUILDING

$1.75

per sq. ft.

Fully insulated 38' x 80' building, entirely of famous factory-built, Weldwood, stress-skin panels. Included are 14 window panels, 14 aluminum windows, panels and hardware for 2 sliding doors, plus necessary roofing materials.

f.o.b. nearest railroad siding—spot cash

ACCENT INTERIOR PAINT

10% OFF

Dries in less than an hour, so you can paint today . . . party tonight. Mixes with water . . . cleans up with water. 13 basic colors give you over 40 beautiful shades to choose from.

PERFECTION VACUUM PUMP

Reg. $225.00

$175.00

with trade-in

No. 5 rated at 18 c.f.m., or 4 to 7 units. Complete with 17 gal. tank and ¾ H.P. motor.





Editorials

By Gordon Conklin

CLARION OF SPRING

THERE ARE many signs of Spring — the geese going north, the first robin, eager young folks on motorcycles, wheat turning emerald green. But my own herald of the season has always been the lowly crow.

Over much of the Northeast a few crows stay around all winter long; I'm not just sure whether they enjoy it, or just can't afford to go South. Anyway, the ones who remain are so busy shivering—and hunting for food—that they are mighty short on conversation.

As the sun climbs higher in the sky, however, a day comes when the crow feels a stirring in his bones—a new note enters his voice, now used more often. He greets the sunrise with a sound that is unmistakably joyful. Hearing him, I know that new life will soon be irresistably stirring within the waiting earth.

What is the secret of the changing seasons —those four s t a g e h a n d s who constantly change the scenery of life? Why, I muse, can't we have summer all the time? "Caws, caws, caws"—it is answer enough.

CHOICE COMING

WELL, THE butterfat's in the fire, and a decision on supply management in the dairy industry may be made before long. Total United States milk consumption declined 3 billion pounds in 1961 as compared to 1960; at the same time both population and milk production increased.

A National Stabilization Committee on Dairy Products, composed of 30 members from 20 states, recently made three basic recommendations to Secretary of Agriculture Freeman:

1. As a first choice, keep status quo—price supports as they are and no production controls.

2. Pass enabling legislation for a national milk supply management program if and when producers request it. This would leave a route open if Congress or the Administration kicked the props out from under (1).

3. Pass enabling legislation that would allow supply management programs in separate Federal order markets through the hearing procedure.

President Kennedy has made it very clear that, if farmers reject some form of supply management, he will press for the lowering of the boom and the setting of $300 million as an annual maximum for the dairy price support program. He points out that, even at 75% of parity, government expenditures will exceed $440 million, so lowering the boom would presumably set a price level below 75% of parity. In his special message to Congress on agriculture, he advocated a national milk supply control program, or giving producers in each Federal order area the authority to set up supply management programs. He also recommended using 1961 production in figuring each producer's marketing base.

The support price for milk was raised from $3.06 to $3.22 late in 1960, and from $3.22 to $3.40 in March, 1961. These raises started milk products pouring into government warehouses, a special sort of justification for the present promotion of supply management.

Make no mistake, there is real determination at Washington to lower expenditures for agricultural price supports. It's been said a thousand times—support prices higher than market prices, plus uncontrolled production, just won't work—very long. The choice looks pretty clearcut—either accept controls that really control, along with a fairly high level of support price, or else be content with a much lower support level and no limit on production.

RUN UPON ROCK

ANYBODY THAT reads a farm paper for ten minutes will see something about change. We're told that the farmer must adapt to changing times, rearranging his management decisions to fit the economic climate. Consumers' eating habits are changing; technology is in a constant state of ferment; today's methods are obsolete tomorrow. After-dinner speakers are fond of saying that "more change has taken place since the turn of the century than in all the rest of recorded history."

The very air "smells of change"—and it enters into areas of living in addition to technology. Commonly accepted moral standards, our religious guidelines, the faith of our fathers—all these are said by many to be no longer valid in a different world. Surrounded on all sides by change, the farmer—and his urban brother—wonder if perhaps these comments are true.

I believe that certain principles carry unchanging truth, that they provide the solid rock upon which you and I can run successfully the changing race. Somewhere in the sacred writings of every major religion are found two of these principles—the Golden Rule, and the belief that at the heart of the universe there is a Supreme Being. Building upon such a foundation, we can constructively use the changes that constantly sweep away the familiar and comfortable patterns of the past.

SUGARING

Drip, drip, the drum drops beat a tune
In frosty March that sings of June,

As farmers splash through slush and mud
To gather sweetlets in a flood

And garner them as gifts divine
Into their sugar-shanty shrine,

Where fragrant steam ascends on high
To form the clouds that scent the sky —

Earth's fitting sacrifice to God,
Who gave aroma to the sod.

—Monroe Conklin

ON DISARMAMENT

TWO MEN stand facing each other in a dusty street. The usually busy scene is so quiet and deserted that a grasshopper's buzzing wings clatter loudly.

One of the men wears a star on his vest. The laughter lines in his face are painted out by the brush of tension; his eyes are as bleak as the desert behind the mountains to the west.

Back of his brittle mask he is thinking, "Someday, mebbe I'll understand what the Good Book means when it says, 'resist not evil.' An hombre like Red Cimmaron, here, comes riding into town and pushes everyone around just because he's big and tough an' has a fast gun. Tryin' to get him to respect other folks' rights is like askin' a sidewinder to give part of his poke to the parson for the church.

"We ain't goin' to prove anything here about who's right and who's wrong — just who's fastest with a Colt. Killin' a man never reformed him, but lettin' him run wild never did either."

However much overdone are those TV "westerns," maybe they help us understand the problems of international disarmament. And they remind us of something possessed by that hardy breed of frontiersmen, something we too must have in larger measure if we are to face the Red Cimmarons of our time.

It is called courage.

LITTERBUGS

THE CONKLIN hacienda is just north of Trumansburg, New York, at the corner of a state highway and a county road. During the course of a year, we pick up a mighty sizable pile of beer cans and bottles, garbage, old tires, and that ever-present symbol of modern civilization—the paper "hankie."

My wife suggested the other day that older FFA and 4-H groups, as well as Boy Scouts and Girl Scouts, could contract with highway departments to "police up" our roads.

As another suggestion, why not sentence violators of anti-litter laws to clean up a few miles of highway, instead of allowing the relatively painless payment of a fine? Never will I forget the "police calls" of the army; not a scrap of paper missed the eagle eye of the top sergeant — and we never quit until they were ALL picked up. Tough? Sure—but it worked.

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A Constructive Force in Northeastern Agriculture

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AA's Farm Dollar Guide

YOU HAVE UNTIL MARCH 30 to decide on participation in 1962 feed grain program. Reduction of 5 cents in soybeans support price may discourage soybean acreage, encourage more corn, and result in lower feed grain program sign-up. The program will be similar to that of last year.

A REFERENDUM ON TURKEY MARKETING ORDER has been postponed to give growers an opportunity to consider changes.

A NATIONAL POTATO MARKETING AGREEMENT AND ORDER have been prepared. It will not become effective unless approved by two-thirds of growers voting. Potato chip manufacturers have objected on ground it would increase difficulty of securing adequate supply of best chipping varieties. Plan provides acreage allotments and marketing quotas but no price supports or payments for taking land out of potato production.

NEW YORK APPLE GROWERS HAVE ASSESSED THEMSELVES a half million dollars to promote their 1961 apple crop. This compares with $343,000 for the '60 crop.

COST OF FARM EQUIPMENT PER YEAR is greatly affected by length of life. One secret of low yearly equipment cost is regular repair, adequate lubrication, keeping under shelter, and periodic adjustment.

IN NEW YORK STATE 21,557 APPLICATIONS WERE FILED for the 1962 wheat stabilization program. Advance payments for Empire State land taken out of wheat are figured at $2,028,340.45. Growers are required to reduce acreage 10%. Many have intimated intention to reduce further, but where acreage has been sown they have until spring to decide whether to plow up excess wheat for pasturing or return advance payment.

TESTS HAVE SHOWN QUITE CONCLUSIVELY that pullets can be raised at less cost in confinement than they can on the range. Authorities generally place the advantage at between 10 cents and 20 cents per pullet, the difference being represented mostly by less labor and fewer losses by death under confinement.

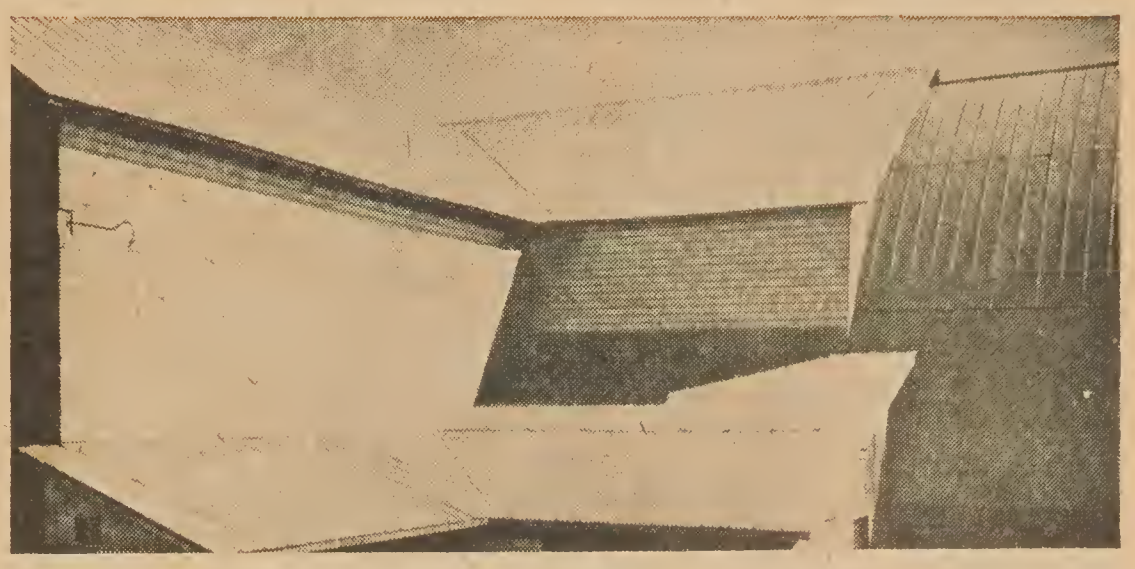
THE FARM CREDIT ACT of 1961 broadens the provisions of the Federal Land Act and the Farm Credit Act of 1933. Among other things, it permits installment payments on Federal Land Bank loans to be scheduled more frequently than twice a year.

The Song of the Lazy Farmer

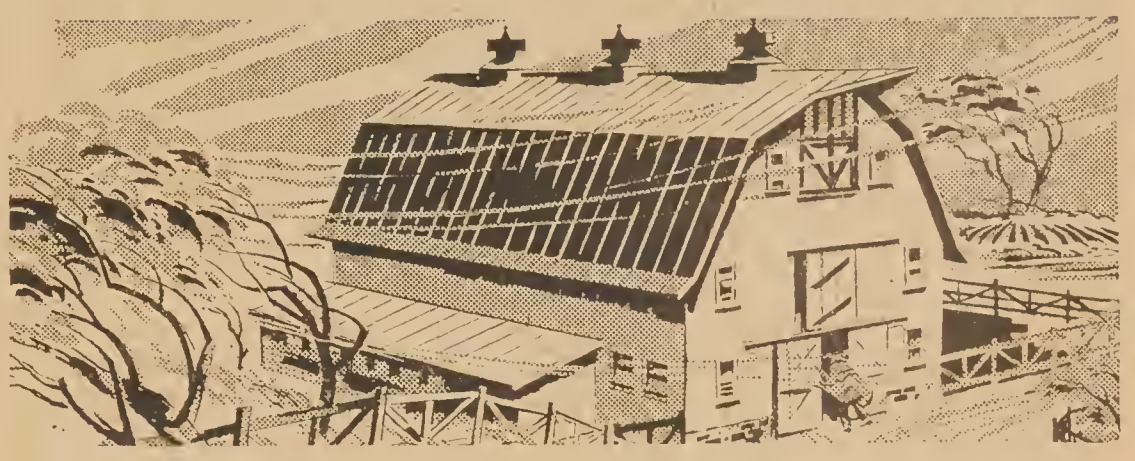


MIRANDY says the thing that she has always rued the most 'bout me is not my well-known laziness—she's gotten used to that, I guess—instead, it's my reluctance to help out when she's got work to do. She says that men who really care about their wives will always share the burden of the household chores as well as working out-of-doors. 'Twould not hurt me a bit, says she, if I'd pitch in occasionally and cheerfully, without a peep, help her to dust and scrub and sweep, 'cause couples who are happiest are those that work together best.

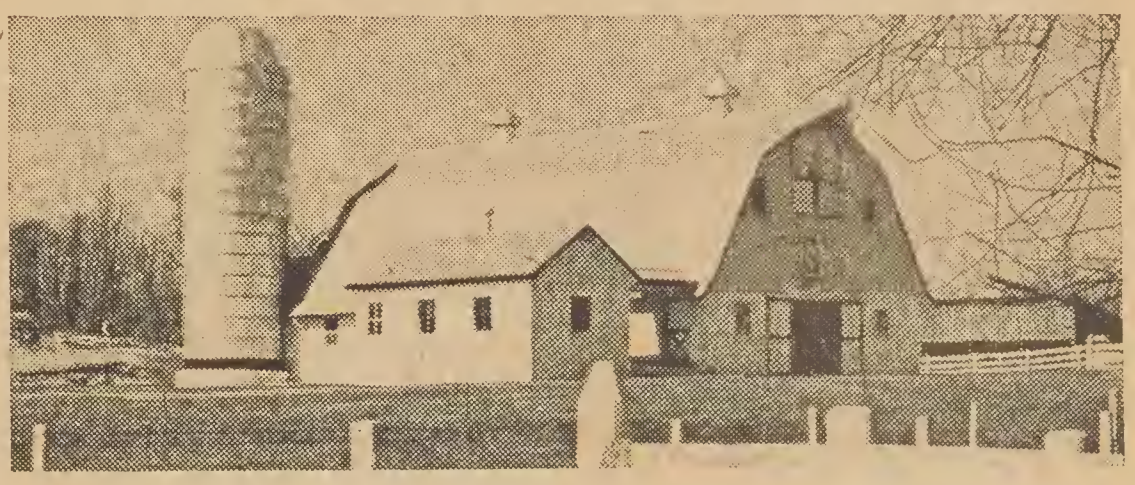
Such silly thoughts Mirandy gleans from reading women's magazines; the vicious propaganda there is writ by guys who never share a lick of work around the house, they just hire maids to help their spouse. Each morning, those birds disappear, the only time they see or hear their wives is for a little while each ev'ning, and that ain't much trial. When you're around home constantly, it's something else entirely; out here, it's easy for a pair to get into each other's hair and have so much togetherness that they wind up in quite a mess.



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Fred Lavack uses the feeding area in which he is standing for summer feeding.

Brings Pasture to Cows

I RAISE no grain on this farm; the land is not well suited to corn. I grow sudan on sod and use it for green chop and silage. The next year I grow oats, which is green chopped for four or five days until it gets too mature, then the balance is put in the silo.

This past year I put about 20 acres of grass, 17 acres of oats, and 17 acres of sorghum in two silos.

This means, of course, that I have to buy all the grain. I feed 16 percent ration to 67 cows at the rate of 1 lb. of grain to 3½ to 4 pounds of milk. The hay is baled.

I use practically no pasture, actually getting just about two weeks of pasture in the early spring. I had a piece of good improved pasture, but it was so far from the barn that I felt I was losing too much milk to have the cows travel back and forth, therefore I started to green chop.

I have 160 feet of feeding space on two sides of the lot adjoining the barn, and feed green chop twice a day, supplementing with silage if there is no crop available to chop. I also feed silage twice a day. In fact, the cows get silage the year round. I figure that the cows are eating at the bunks about two hours twice a day, and most of the rest of the time are lying down chewing their cuds.

One result of this system was that I was able to dispose of the combine, which cut my investment in equipment.

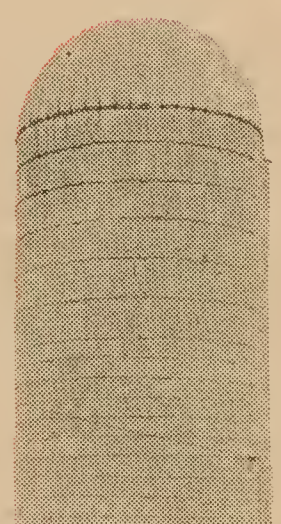
Even though cows have green chop and silage in front of them all the time, I am planning to build a bunk in the feedlot to hold some dry hay during the summer.

—*Fred Lavack, Gouverneur, N. Y.*

Top-Quality Roughage

How to provide top-quality roughage to dairy cattle is a subject of interest to almost every dairyman. Methods vary from farm to farm and from region to region in the Northeast.

Your editors have visited many dairymen and asked them about this subject. Here are some of the experiences related to them. You will note that some use green chop feeding in bunks; others use silos for storing summer feed as well as winter roughage. Your editors expect to have some articles coming up in the future that discuss at greater length the possibility of storing low-moisture grass silage in conventional silos.



Summer Feeding From a Silo

I HAVE relatively little pasture, and for two summers have filled the silo in the pasture mostly with grass, which has been fed in bunkers with an automatic feeder. I could wish the silo was a little bigger. I could add some to its height, but last year I got around the lack of size by filling it twice. There is about 12 feet of silage in the silo now with which to start feeding as soon as the weather permits next spring. I have never used a preservative in the silo.

The cows are usually fed morning and night after milking, sometimes three times. I have 60 milkers. It is in my mind to put up another silo next fall. In order to make a low moisture grass silage, I cut my alfalfa-timothy-brome grass stand one morning and begin chopping it the morning of the following day. This is no job for steady wet weather, because fairly good drying conditions are needed.



Abner Zehr and the silo used for summer feeding.

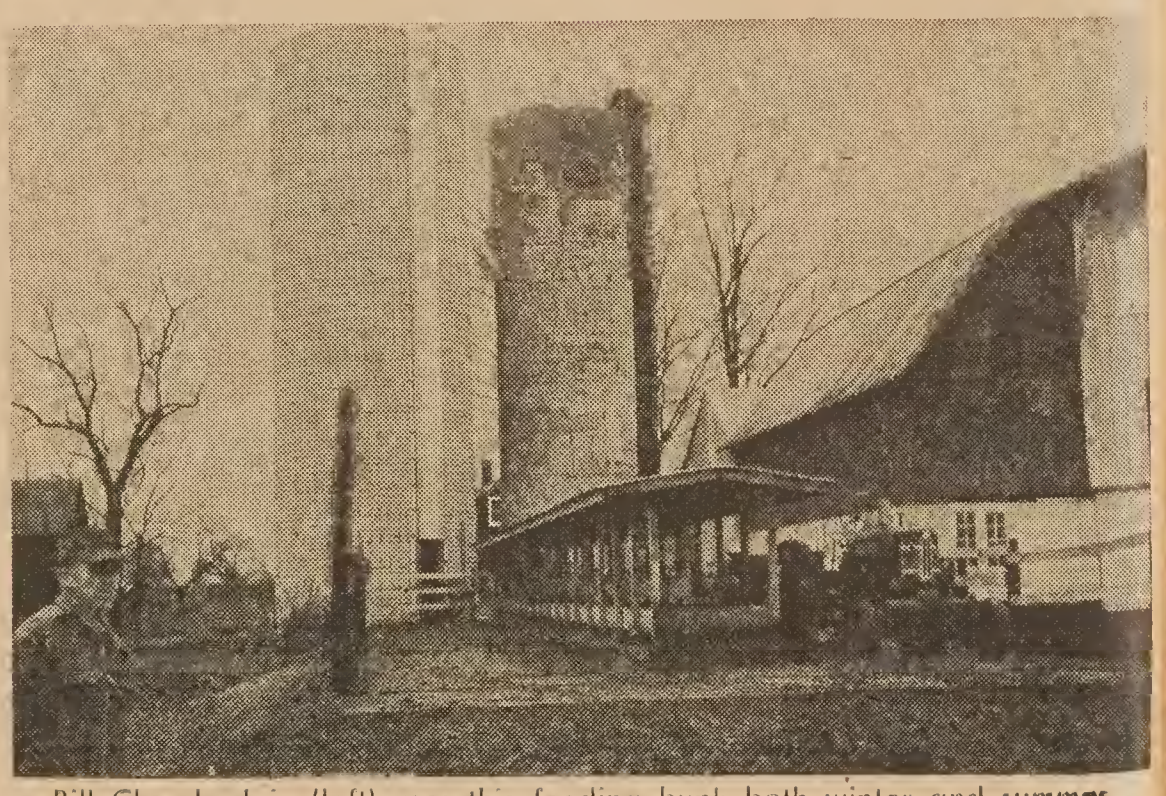
I top off low-moisture material with some high moisture stuff, and then put a plastic cap over the top. Although we haven't used a mechanical distributor in the silo, the mound in the center is leveled off quite often during filling. Spoilage of this material has been very small in my experience. —*Abner Zehr, Woodville, N. Y.*

Likes Low Moisture Silage

I HAVE practically no pasture for the cows, and for the past two years have been feeding low-moisture grass silage in a bunk with an automatic feeder. The silos are arranged so that they can also be used for winter feeding.

I became interested in low moisture grass silage when I went with a group of dairymen to Wisconsin some years ago. I decided to try it, and have found little in the way of problems.

There is a point around 50 percent moisture when grass silage will gum up and sometimes block the blower. This past year I had the low moisture grass silage analyzed and found it had 35 percent moisture and 11.8 percent protein. When it comes to judging moisture content when it goes into the silo, you just have to know—and, of course, you don't always hit it exactly right. Two years ago I cut it and used a hay conditioner and it was a little too wet when it went in. This year, in addition to cutting and conditioning in the morning, we turned it over after lunch and usually began chopping in late afternoon, using two self-unloading wagons. I am quite enthusiastic about our results so far. — *William F. Chamberlain, Mannsville, N. Y.*



Bill Chamberlain (left) uses this feeding bunk both winter and summer.

Raises No Grain

I DON'T raise any grain and buy all the concentrates the cows eat. I figured a ratio of 1 pound of grain to 4 of milk, but actually it comes out closer to 1 to 3½ pounds. About one-third of the milk check goes for cow feed, which is higher than average, but I believe it pays.



JOHN RICH

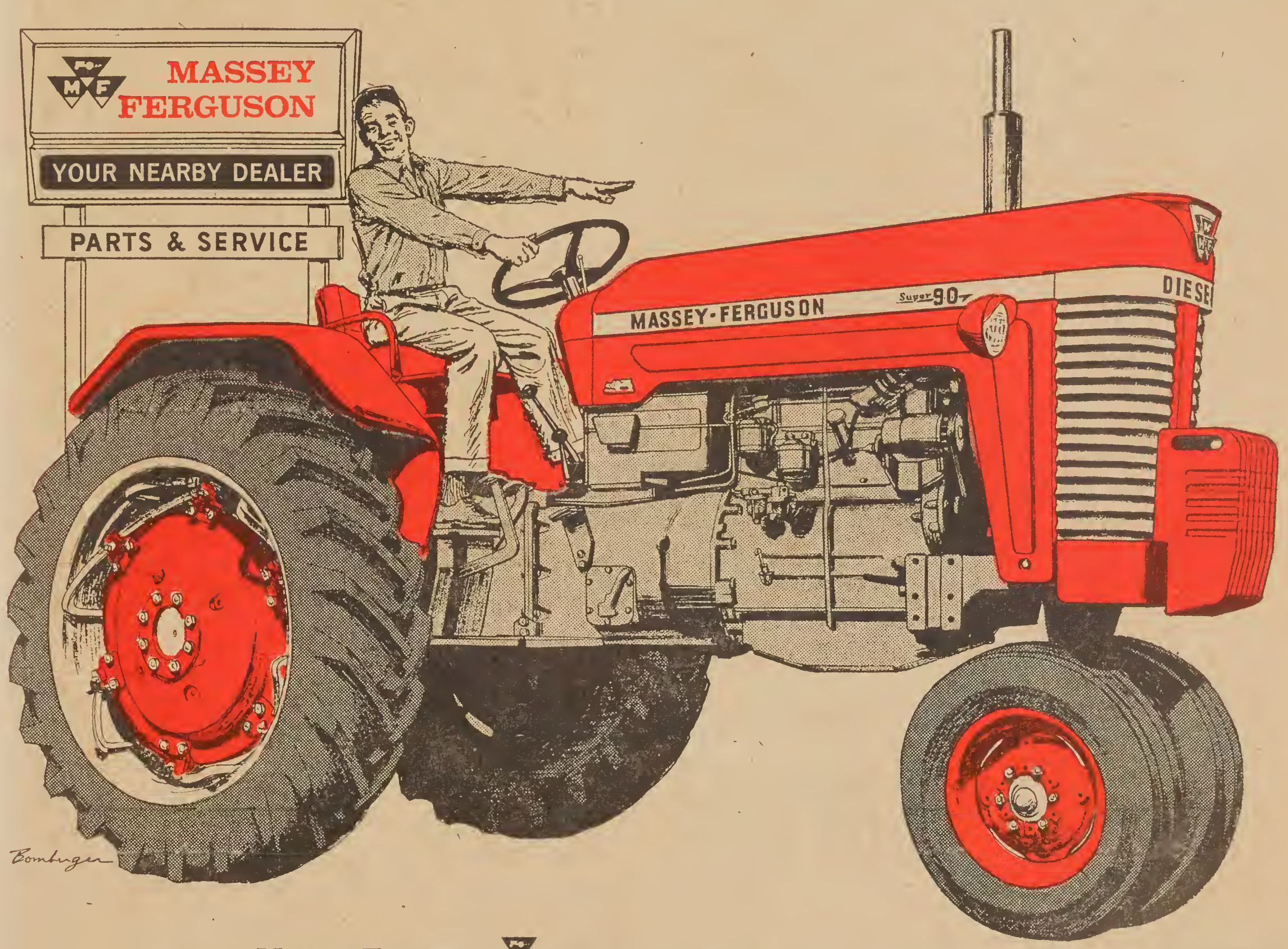
Right now I am doing some figuring and will possibly install a mow drier to help put up better hay without heat.

I have three silos, and we have fed grass silage for a good many years. I fill two silos with grass, one of which is mostly fed out during the summer, then refilled with corn. The third silo is used for oats. I never liked the job of shocking oats anyway, and, besides that, I find I get better seeding when oats are cut off early for silage.

I fed some green chop in June, but I prefer to feed from the silo I have never noticed much difference in milk production when changing from one kind of silage to another, but perhaps that is because I always feed two kinds of silage at the same time.—*John Rich, Canton, New York*

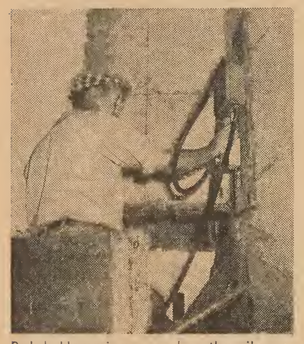
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Personal Farm Experience



Ralph Hemminger pushes the silo unloader button.

Busy Trailer

WE HAVE 5 silos — two 16'x55', one 14'x32', a 16'x40', and a 12'x35'. None of them are well located for an auger-equipped feed bunk, so we use a self-unloading wagon 365 days a year to move silage to a 100 foot feed bunk in the pen stable. The stable ceiling is high enough so we drive right along the bunk.

Our silo unloader is used in one silo after another to put silage into the wagon. Actually, the "wagon" is a self-unloading tandem trailer. The tandem arrangement allows easier backing up to a silo than would be the case with a standard wagon undercarriage. The trailer makes a good substitute for feeding bunk augers, and it's also useful in the field for filling silos.—*Ralph Hemminger, Geneva, N. Y.*

Stored Feeding

We use a trench silo for corn silage that is 126 feet long, 30 feet wide, and averages about 15 feet deep. Our 80 cows feed from this, also eat green chop in the summer, and have hay in addition.

Meadows are topdressed each year with 700 pounds of 0-25-25 and some are topdressed with manure. We use a self-propelled windrower for cutting hay.

In 1961 we filled a 12 x 50 foot silo with high moisture (23-30%) ground corn and cob. The silo was too small for efficient silage storage, but it worked well for the corn. —*Ralph Dotterer, Mill Hall, Pa.*

Growing Christmas Trees

Our first experience with growing Christmas trees was in 1954. The year before my wife and I had purchased a 50 acre piece of land previously used as a cow pasture. We wanted privacy, and a good site for our planned home.

We bought the trees from the State nursery at Lowville at $3.50 per thousand, and they arrived about April 20. They included 1,000 each of white pine, Austrian pine, Scotch pine and white spruce.

We soon found that a man who sits at a desk all day is not in condition to plant trees all day—without painful results. After the first thousand seedlings had been planted, we were more than happy to hire some schoolboys to plant the remainder, although we helped. In following years we employed a planting crew.

We had almost 100 percent "take" from this first planting. By the Christmas season, after checking through catalogs that showed exceptional Christmas trees, we decided ours must be worth about 50 cents each. We ran our first ad in November, 1959, for "cut your own" trees. Our first buyer took 300, opened up a Christmas tree stand in the nearby city, and sold them for $2 to $3.50 each!

The 1960 season wasn't too prosperous. We raised our price to $1, but the majority of the quality Scotch pine had been cut the year before, so sales were slow. The 1961 season was much better, with many of the Austrian pine of 4 to 6 feet size.

We have found that the demand for Scotch pine has been excellent. They can be sold five years after planting. Austrian pine grows slower, but needs less trimming. White pine also is slower growing, and needs continual pruning. White spruce takes 8 to 9 years to reach marketable size; balsam 12 to 15 years. We bought our first trees from the State, but we feel now that purchasing trees from a nursery that specializes in them is worth while if you plan to make a business of selling them. The State, of course, is not primarily interested in trees for Christmas sale.

We had an interesting experience with a few Colorado blue spruce which we bought from a private nursery in 1955. In 1960 we advertised them for $3 each, dig your own, and sold every one—even the scrubs. You cannot sell State trees with the roots on—and, of course, only a blue spruce or some ornamental type tree will bring such a high price.

We have used the money gained from the sale of the trees to buy more. And we feel that even if we never cut another tree we have made worthwhile use of the land, have a long-range investment in timber, have provided a haven for birds and wildlife, and have enjoyed every minute devoted to our trees. We like to share our enjoyment of this project with others who write or visit us.

All that is needed is some land, a strong back, a mattock, and some seedlings. And spring is the time! —*W. H. Rawlings, R.D. 4, Rome, N. Y.*

Quits Pen Stabling

We switched from stanchions to pen stabling in the fall of 1956, then switched our 55 cows back to conventional stabling in the fall of 1961.

There were a number of reasons for this, one of which was the fact that the pen stable setup was pretty cold—not for the cows, but for us. My two sons, 14 and 16 years old, couldn't give as much individual attention to their own cattle with the pen stable; they seem to show more interest in their animals since we changed back to stalls.

Right from the start, one of our big problems with loose housing was getting enough grain into the cows during the time they were in the milking parlor. We grow a lot of our own grain and like to use it for dairy feed, but we found that could only get a maximum of 12 pounds of this loose material into a cow during two milkings. We switched to pellets and finally to flakes; the latter allowed us to get up to 26 pounds of feed per day into top producers. We lost a lot of milk production the first year because we couldn't keep the grain feeding level high enough. Now, of course, we can feed grain twice a day in the parlor and then give whatever extra feed we want while the cow is in the stall.

Another problem we found in pen stabling was that the cows' feet seemed to always get dirty and then when they lay down their udders got dirty too. In all the herd, only one is dirtier now in conventional stabling than with the previous loose housing.

By the way, our feeding area is paved and we always used plenty of bedding to keep things clean in the loafing barn.

Speaking of bedding, we figure it took about twice as much bedding for loose housing as it does for our present tie stalls. Even though we grow quite a bit of grain, we always ended up buying straw before our switch back to tie stalls. We now have to take the manure out every day, but even with pen stabling it had to be spread two or three times a week because the holding and feeding areas had to be kept clean.

We still feed cows corn silage in an auger-equipped bunk alongside what was formerly the loafing barn. This barn is now used for loose housing heifers and dry cows, and part of it is for milkers to get in and out of the weather while they're turned out to eat corn silage.

We continue to use the milking parlor, letting out half of the herd at a time into a holding area. One man can get the milking underway and be half through before he needs help. With the pen stable, one man could milk the entire herd by himself. We notice it takes longer now to do chores, but we think our production is somewhat higher.

We didn't go back to stanchions, but use a tie stall patterned after one we noticed at the Morris Johnson farm near Auburn. — *Stanley Bothwell, Genoa, N. Y.*

Extra Engine

For filling silo, we use a 100 h.p. Mercury engine on an industrial mounting to operate the blower. Before we bought it, the engine was used for commercial feed grinding and therefore already had a throttling governor. It has plenty of snap to push silage up into a 14' x 48' silo. We have four silos of this size and, with summer feeding, the motor has to fill the equivalent of five silos.

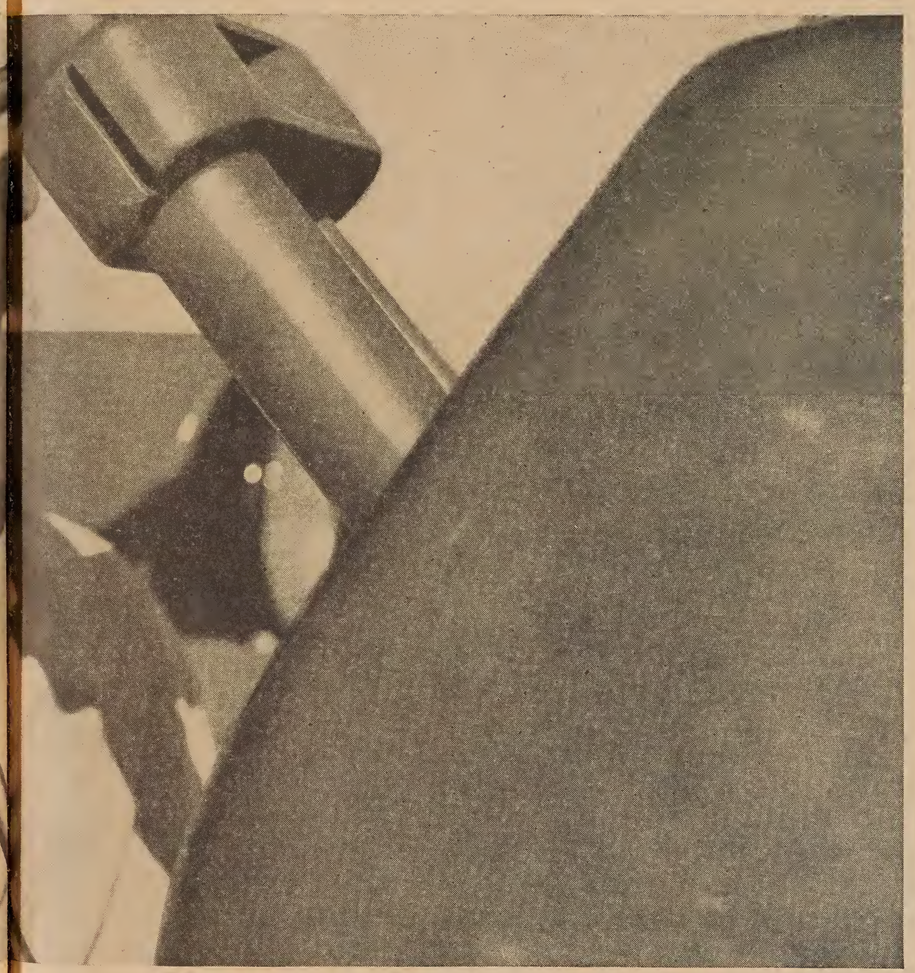
The engine cost us $250 originally and we mounted it on an old World War I army wagon. It's easily movable and has a roof over it to protect it from the weather. We've used it for 10 years and have found it mighty handy because it replaces a tractor that can be doing work in the field. We've never used it for anything except silo filling, but it could be used for most any belt job. —*Vincent LaFave, Watertown, N. Y.*

Zero Grazing

Our 32 cows are "zero grazed," beginning in April with chopped rye. DuPuits alfalfa comes next on the green chop schedule, with Vernal alfalfa following. Oats are also used and work fairly well this way; we've made oat silage, but don't like it. In 1961, we left out sudan grass in our cropping plans—a bad mistake. Our herd will eat chopped sudan eagerly even when they will turn up their nose at alfalfa.

We've been chopping green feed twice a day during the summer, using a self-unloading wagon. It may be that the next step is to go to year 'round feeding from a silo. —*Alvin Houck, Tyrone, Pa.*





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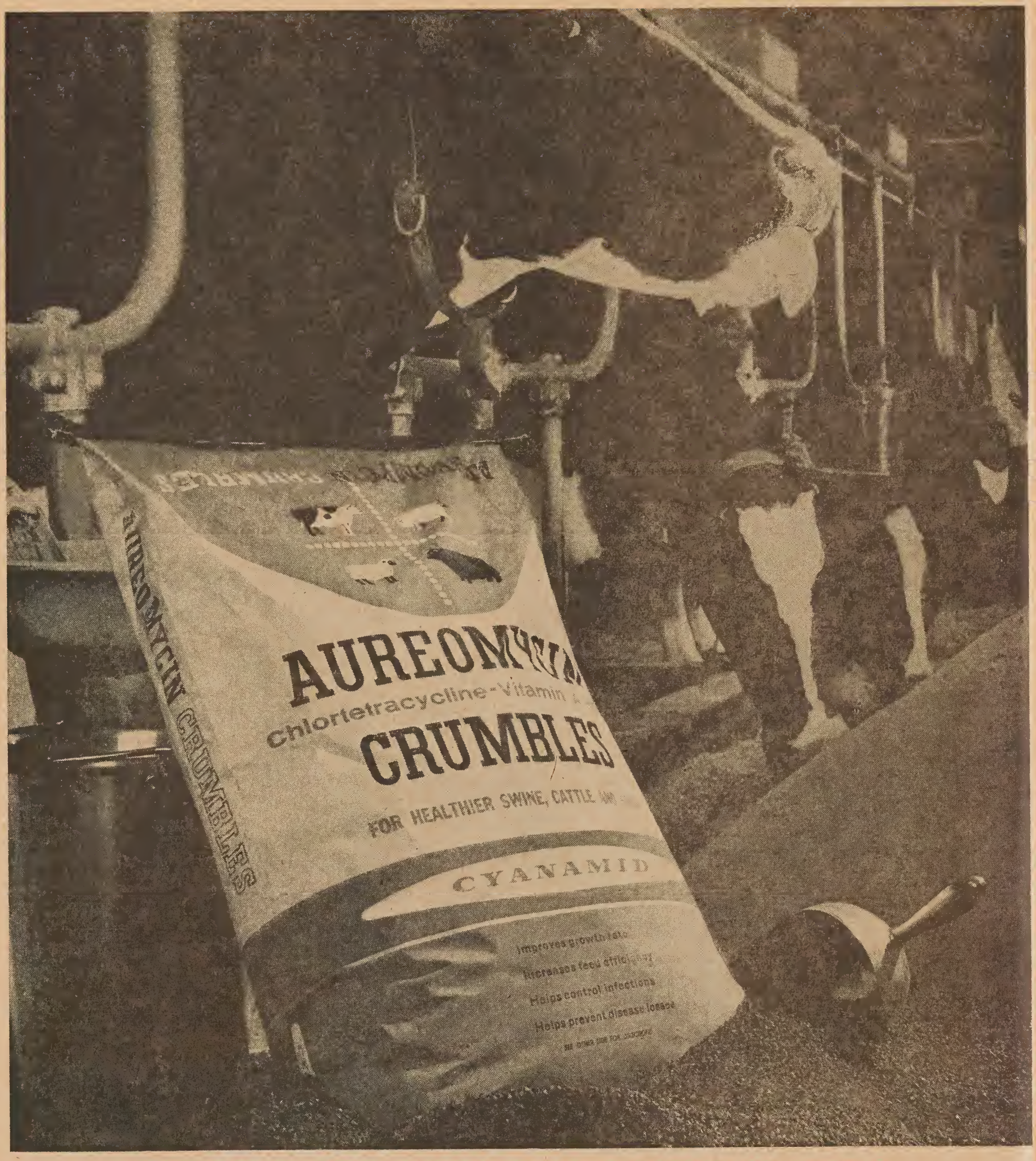
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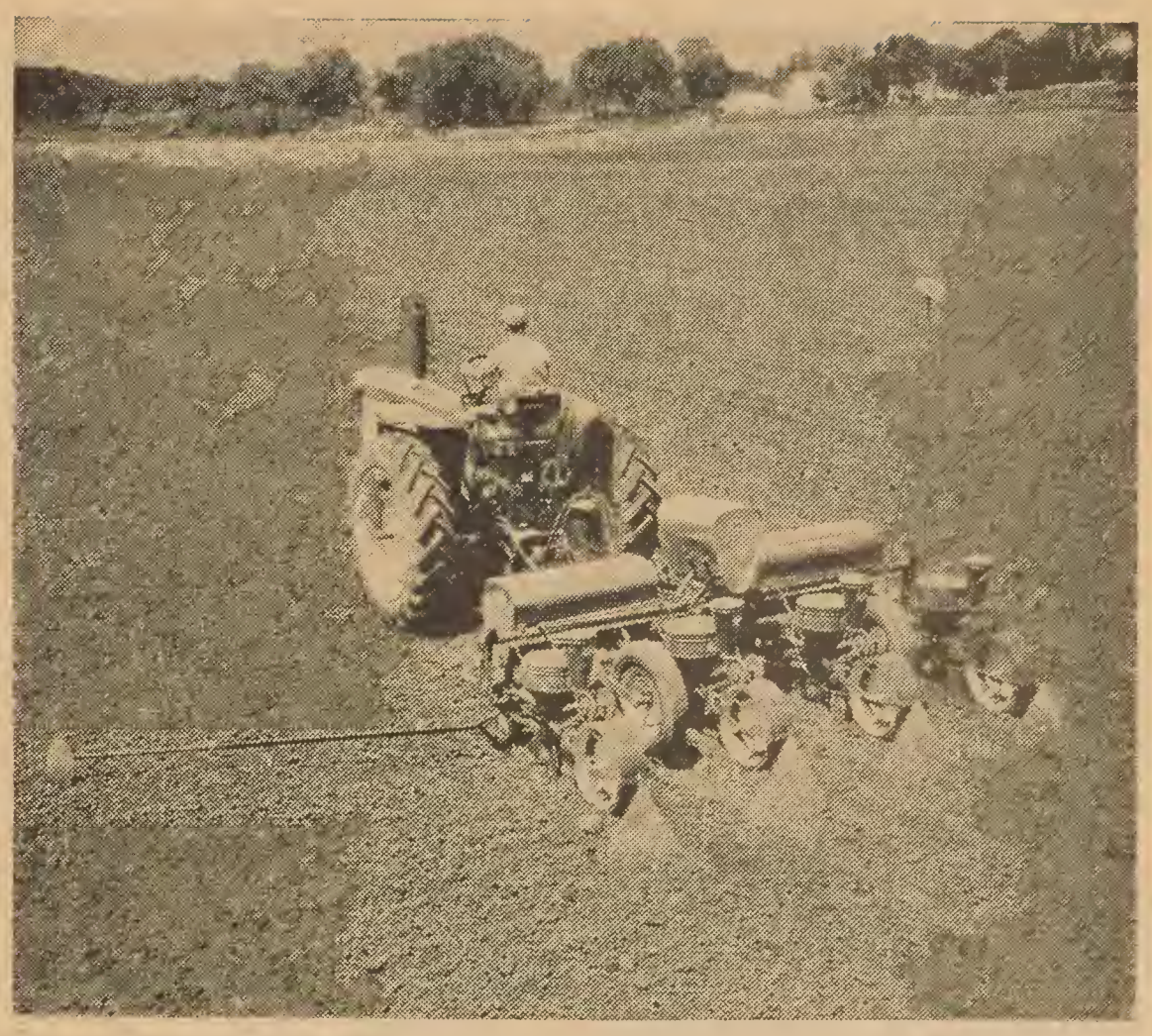
CYANAMID

AUREOMYCIN
CRUMBLES

By STANFORD N. FERTIG*

CLOBBER THOSE WEEDS!

Here's how to whip quackgrass, plus a list of recommended herbicides for field crops.



WHAT is the best way to control quackgrass? Can quackgrass be controlled? These questions are asked frequently by farmers in meetings and through correspondence.

Over the years, farmer success in reducing quackgrass infestations has varied from poor to good depending upon the crops grown, length of the rotation used, weather conditions and the intensity of cultural operations before and after the crop was planted.

The control of quackgrass is not now solved for all crop situations but farmers who include corn in the rotation do have a solution to the problem. New chemicals are available that will kill quackgrass without injuring corn.

Quackgrass competition can be a major factor in reducing the yields of corn for silage or for grain. Where recommendations for treatment are followed, stands of quackgrass can now be reduced 75 to 90 percent and yields of corn increased 50 to 300 percent. Many farmers during the past 2 to 3 years have obtained consistently good results in controlling quackgrass in corn using the combination of chemical treatments now recommended by many states.

Amitrol-T plus Atrazine

On fields to be planted to oats and a legume seeding, vegetables or perennial grasses the following year, a combination of Amitrol-T plus Atrazine is suggested.

Amitrol-T at the rate of one gallon of commercial material per acre is applied on quackgrass sod in the spring. The quackgrass must be actively growing and 4 to 8 inches tall Plowing is delayed for 10 to 16 days or until the foliage of the quackgrass has turned white. The sod should be plowed soon after the foliage changes color. Delayed plowing will reduce the effectiveness of the treatment as the quackgrass will start recovery. A uniform and complete turn-under of the sod is necessary to good control of quackgrass.

Corn can be planted immediately after plowing where desired. If corn is not planted within 7 to 10 days, the fields should be cultivated to prevent regrowth of the quackgrass. Within 21 days after the corn is planted or before the weeds exceed 1½ inches in height, 2½ pounds of Atrazine 80W is applied as an overall spray. This treatment can be made pre-emergence or post-emergence to the corn. Since moisture is necessary for effective results with Atrazine, the pre-emergence application is preferred. When treatments are applied 1 to 2 days after corn planting, there is added opportunity for rainfall, thus, better performance of the Atrazine.

Cultivation of the corn when it is 4 to 8 inches tall is essential for the maximum kill of quackgrass. If the stand of quackgrass is heavy, two cultivations may be desirable.

Atrazine Plus Atrazine

For fields to be planted to corn for more than one year, the combination of Atrazine plowed-down, followed by Atrazine within 21 days after the corn is planted will result in a better kill of quackgrass than any other presently recommended treatment.

Atrazine 80W at the rate of 2½ pounds per acre is applied on actively growing quackgrass sod in the spring. The quackgrass should be 3 to 5 inches tall. Plowing is delayed for at least 14 days. The quackgrass may show a browning effect in 3 to 4 weeks but a change in color before plowing is not necessary. The sod should be plowed uniformly, with the foliage completely turned under. A poor job of plowing will result in poorer control.

Corn can be planted immediately after plowing where desired. If corn is not planted within 7 to 10 days, the fields should be cultivated to prevent regrowth of the quackgrass and to control germinating broad-leaved weeds and annual grasses.

Within 21 days after the corn is planted or before the weeds exceed 1½ inches in height, 2½ pounds of Atrazine 80W is applied as an overall spray. This treatment can be made pre-emergence or early post-emergence to the corn. Since moisture is necessary for effective results with Atrazine, the pre-emergence treatment is preferred. The research work for the past two years has shown no advantage for the pre-emergence over post-emergence applications. Each year, however, the months of May and June had an excess of rainfall. Such favorable weather conditions do not always occur and the first 2 to 3 weeks after treatment are the most critical.

With uniform spray application, a good job of plowing and adequate moisture, the combination treatment should reduce the stand of quackgrass 75 to 95 percent. Seasonal control of broad-leaved weeds germinating from seed and control of annual grass species is an added incentive of the program. The more favorable result, however, is the increased yields of corn from the treated compared to untreated fields. Increased yields of 50 to 300 percent are not uncommon.

Fall Treatments

For the control of quackgrass, combination treatments including Atrazine have performed best as split treatments before and after plowing and the overall results have been better with spring than with fall treatments.

Where fall plowing is desirable, however, due to soil conditions, 3¾ pounds of Atrazine 80W should be applied about two weeks before fall plowing. After corn is planted the following spring, 2½ pounds of Atrazine 80W should be applied pre-emergence or early post-emergence. Cultivation when the corn is 4 to 8 inches tall will further reduce the

(Continued on Page 45)

Herbicides For Your Field Crops

CROP	CHEMICAL	RATE PER ACRE
CORN At planting (Banded)	Atrazine	2 pounds per acre in 20-30 gallons of water
Pre-emergence 3 to 5 days after planting	2,4-D low volatile ester	1½ pounds in 5 to 15 gallons of water
	Atrazine	1½ to 2 pounds per acre in 20 to 30 gallons of water
Post-emergence Corn 2 to 10 inches tall	2,4-D amine	½ pound
	2,4-D low volatile ester	¼ pound
Post-emergence	Atrazine	1 to 2 pounds in 30 gallons of water
OATS or SPRING BARLEY Seeded: Grain 2 to 6 inches tall	Dow Premerge or Sinox P.E.	1⅛ pounds in 30 gallons of water
Grain 6 to 15 inches tall Good canopy essential	2,4-D amine or MCP amine	¼ pound in 5 to 7 gallons of water
Not seeded: Grain 4 to 10 inches tall	2,4-D amine	¼ to ½ pound in 5 to 15 gallons of water
WINTER WHEAT or BARLEY Fall treatment to be spring seeded to legume	2,4-D amine	0.3 pound in 5 to 15 gallons of water
Spring treatment not seeded to legume	2,4-D amine	¼ to ½ pound in 5 to 15 gallons of water
Spring treatment after legume seeding Canopy essential	2,4-D amine or MCP amine	¼ pound in 5 to 7 gallons of water
NEW or ESTABLISHED SEEDINGS Predominately red clover	MCP	¼ pound in 5 to 7 gallons of water
Alfalfa and birdsfoot trefoil	No chemicals have yet proved satisfactory for weed control in these two legumes.	

Check with your county agent for details of application; read labels on herbicide containers.

*Cornell University, Ithaca, N. Y.



John Jonker washes eggs soon after gathering and holds them in this cooler.

On this New Jersey farm

The Watchword Is Quality

By ALLEN POMEROY

HOW IMPORTANT is it to own and manage your own poultry enterprise? Many poultrymen have reflected seriously on this subject. Mr. and Mrs. John Jonker, Green Mountain Poultry Farm, Oakridge, New Jersey, have found their own answer. They have developed a program for production and marketing of high quality eggs and broilers, products which they are proud to sell, and which meet the demands of their quality-conscious customers.

The basic plan was evolved by John years ago while he was working in a Passaic office. He wanted to have his own business, and had a yen to live in the country. There is nothing sensationally new in these ideas, but his were backed with careful thought, considerable determination, and the wholehearted support of Mrs. Jonker. Their goal was reached by steps over a period of years.

Meat and Eggs

Now the Jonkers produce and market the eggs from 1,800 pullets and hens, and produce, dress, and market 5,500 broilers and roasters annually. The premium prices they receive reflect consumers' desire for top quality eggs and broilers and their willingness to pay for them.

Meticulous attention to **all** details of the business is evident as soon as one arrives at Green Mountain Farm. The lawn is closely clipped right to the foundation of the two-story 122' x 30' cinder block poultry house that John constructed himself during a five-year period. The sales room, egg storage, and poultry dressing room in a one-story 30' x 30' wing area are immaculate.

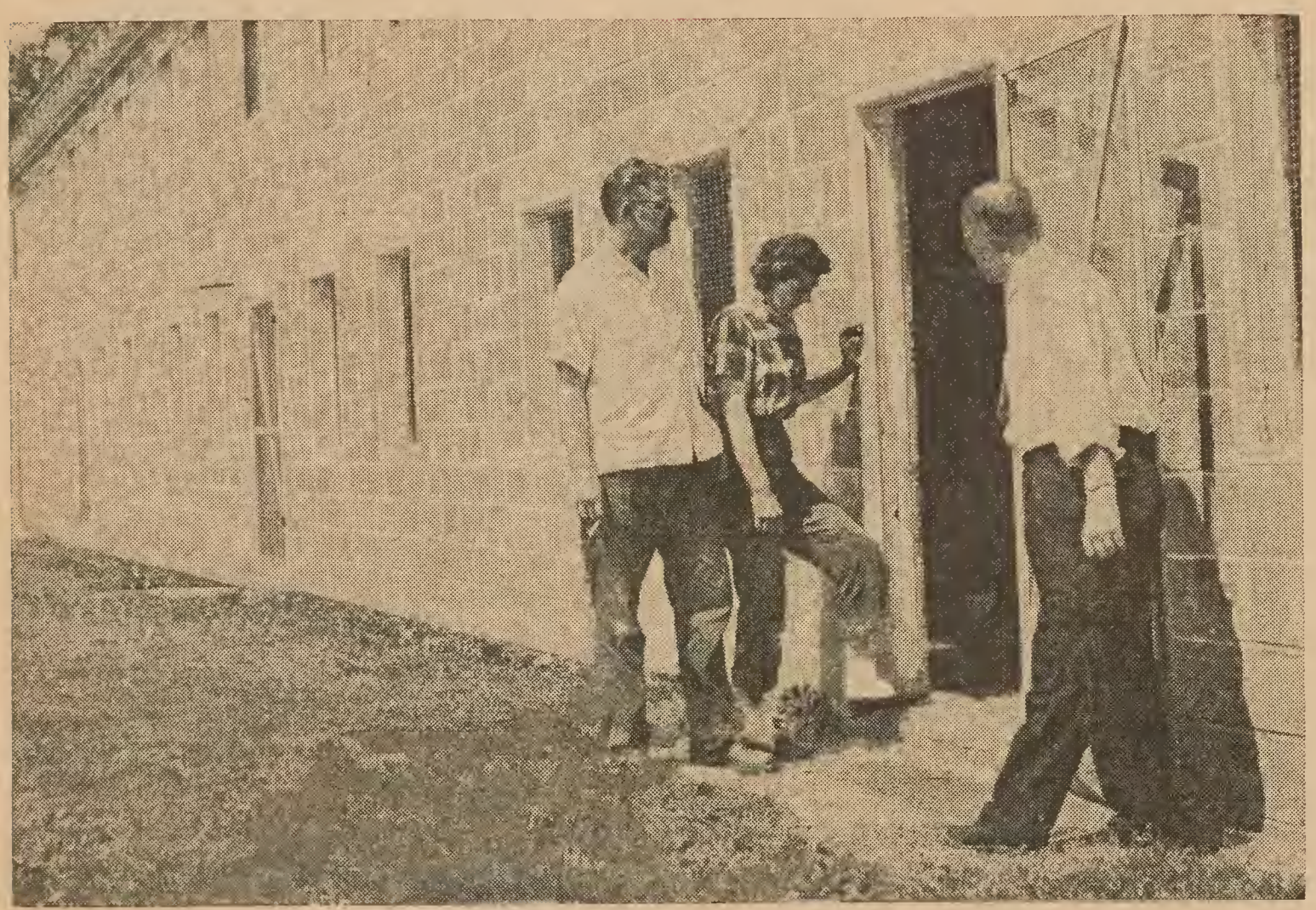
Broilers (pullets purchased in lots of 700) are grown in three 30' x 30' pens on the first floor of the house. A few more than 100 per week have been dressed and sold at retail over the past two years. Customers call at the farm for about fifty percent of them; others are delivered to the homes of regular customers, who then place their orders for the following week.

Dressing starts when the birds are six weeks old and dress out at 1¼ to 1½ pounds. Each batch is completely sold out by 14 weeks of age, when these older birds weigh approximately 5 pounds dressed. The dressed broilers are drained and placed in polyethylene poultry bags. They are quick frozen in one freezer; two other freezers are used for storage; and sales are made from a fourth. The birds are marketed in the sequence in which they are dressed.

Temperature in the three 30' x 30' broiler pens is held at 60 degrees F. in winter with a forced air heating system. Temperature under the brooders is 95 degrees for the first week, then gradually lowered. John uses aluminum brooder guards, which are cleaned and disinfected thoroughly after each brood and carefully stored until needed again. With the room temperature at 60 degrees, aluminum guards reflect sufficient brooder heat to maintain a 70 degree temperature within them. John states: "With a 70 degree temperature the chicks come out to eat freely and get off to a good start." A standby generator is available in case of electrical power failure.

A high quality starter mash is fed for the first three weeks. From three to six weeks of age medicated starter pellets are provided. At six weeks a broiler finisher pellet, not medicated, is supplied. Starter size granite grit is provided for the first two weeks, then the grower size granite grit is made available free choice. All-night lights are used in the pens to encourage the birds to eat whenever hungry.

Broiler chicks are debeaked at two weeks, and at about that time brooder guards are removed. At 2½ weeks of age Newcastle and bronchitis vaccine is administered in the drinking water. The Jonkers' feed company advisor, Leroy Robinson, is on hand when such operations are in progress, and he visits the farm frequently. Broiler mortality is held to less than 1 percent per year.



The 122' x 30' poultry house was built by John himself. Layers are housed on the second floor. Left to right: John, Mrs. Jonker, and feed company advisor L. H. Robinson.

Laying Program

The Jonkers originally raised their replacement pullets. However, by switching to started pullets, an extra batch of broilers can be produced in the area released from pullet growing, and the extra broilers raised more than offset the cost of the started pullets.

Pullets are produced for Green Mountain Farm under a definite contract. When the replacements are delivered to the farm at 20 weeks of age, they are a "finished product." They have been debeaked, vaccinated, and are ready to lay. In fact, there may be a few eggs in the crates when the pullets are delivered! John says: "By buying started pullets we can keep laying pens filled at all times; also, we can arrange for delivery at any time of year. When we raised our own replacements, it had to be done during the summer."

Each new batch of pullets brings the laying house inventory to 1,800 birds, comfortably accommodated in three pens in the 3,300 square feet second floor area. The Jonkers' good management makes this concentration of birds possible. The floors are dry, litter and clean nesting material are added frequently, ventilation is good, and waterers and feeders are cleaned regularly. *(Continued on Page 31)*

Geigy *creators of chemicals for modern agriculture*

how to grow corn without weeds...

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ATRAZINE
or
SIMAZINE
HERBICIDE

One application of Atrazine or Simazine herbicide eliminates weed nuisance—controls broadleaf weeds and grasses right through to harvest.

These safe, modern weed killers ean reduee or eliminate eultivations, save seasonal labor demands, and help you get higher yields by keeping weeds out of eorn.

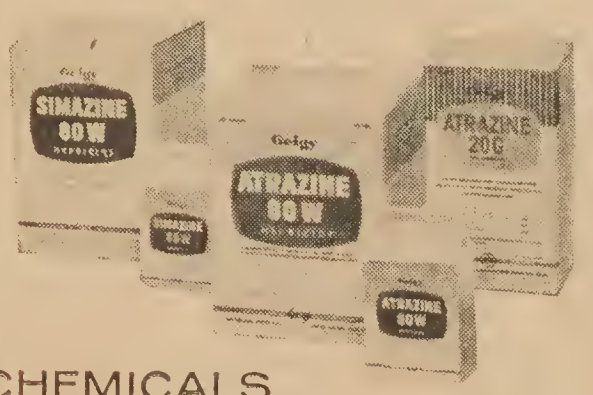


FREE WEED CONTROL MANUAL

Learn the latest methods in the science of weed control. Mail a posteard for your free 32-page full color manual of instruction for Atrazine and Simazine herbicides. Address Geigy Agricultural Chemieals, Saw Mill River Road, Ardsley, N.Y., Dept. AA-3.

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Put your haying on a sound

JOHN DEERE *gives you "assembly line" methods to reduce handling... save time...cut costs*

Your farm, like any other successful business, must show annual improvement through better management if it's going to stay profitable. That's why John Deere continues to design new equipment and improve methods to put greater efficiency into haying.

Good Management Pays Off . . .

For peak efficiency, you must make the best use of time, labor, and equipment. How? By letting your dealer systemize your operations with John Deere capacity-matched hay tools. Not only can he supply the equipment but parts and service as well. What's more, he has a credit plan which makes financing easy.

Whether yours is a family-sized farm, a commercial hay-growing spread, or somewhere in between, John Deere puts hay production on an assembly line from field to storage with a complete line of equipment. This line is so flexible that it can be tailored to your fields, crop conditions, acreage, and tractor power.

When your hay tools are *all* John Deere, you can bank on double-quick service on *every* machine. Your John Deere dealer has the parts . . . his factory-trained mechanics have the experience.

And speaking of parts—genuine John Deere parts are identical to the originals. This means they *fit* and *wear* like the originals.

Keep in Step with the Times . . .

Plan now to put your haying on an assembly line. Whether you want the whole package or prefer to buy equipment a piece at a time, the John Deere Credit Plan makes ownership easy. Down payments are made in cash or trade. Installments are arranged to coincide with your monthly or seasonal income.

These are just some of the reasons why it pays to go John Deere. See your dealer soon and put your haying on a sound business basis!

JOHN DEERE
3300 RIVER DRIVE, MOLINE, ILL.

JOHN DEERE
125 YEARS

JOHN DEERE design,
dependability,
and dealers
MAKE THE DIFFERENCE



Mowers

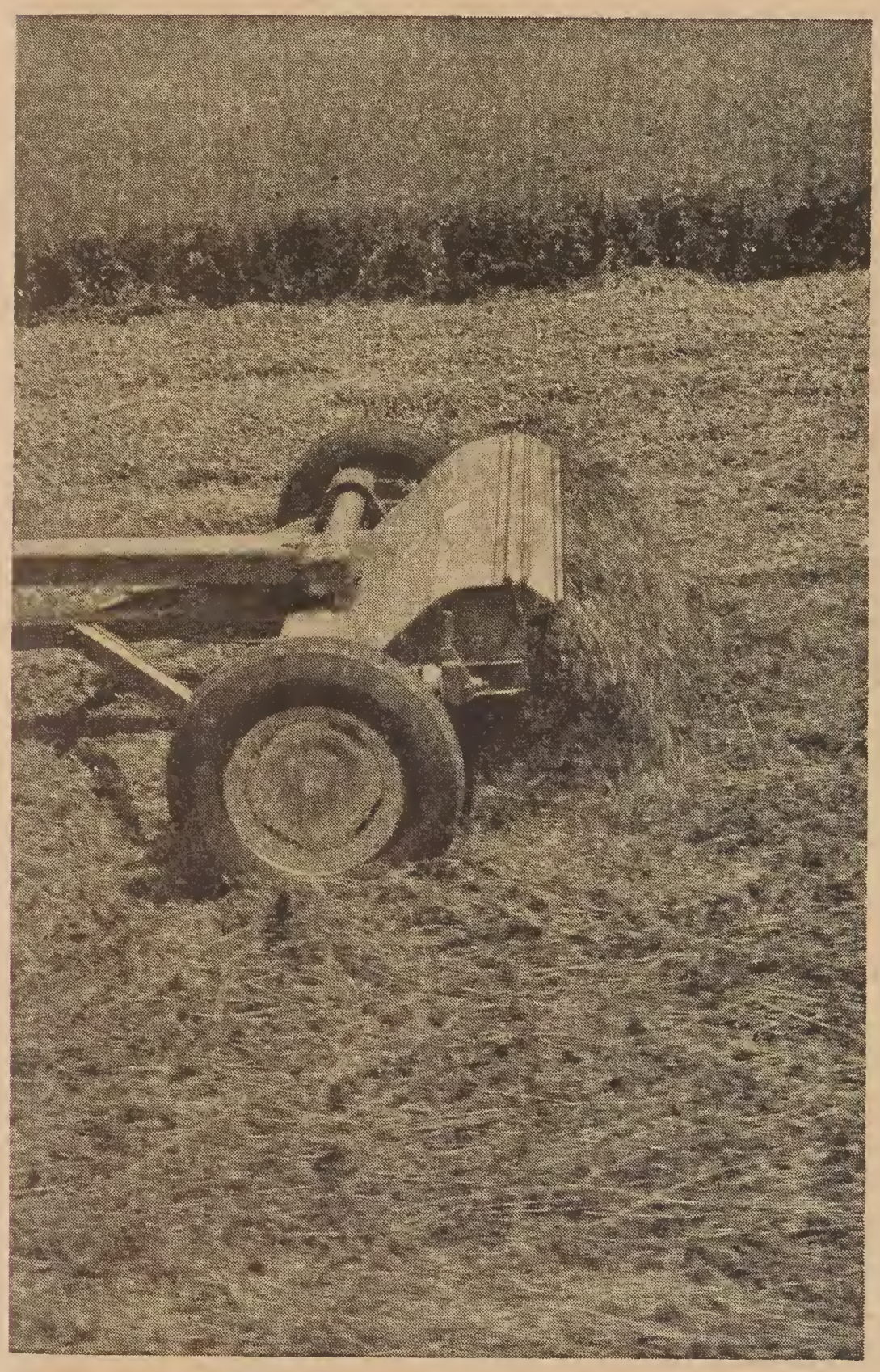
John Deere Mowers are big capacity machines. Equally important they're dependable. Quality construction and simple adjustments keep them running just like new year after year. Any John Deere you choose will cut 35 or more acres per day.

The new 11 Trail-Type Mower (above) has a fast, drawbar hitch. Drop in the hitch pin . . . attach the hydraulic cylinder and power take-off shaft . . . and it's ready to go. Large, offset wheels reduce "side drift" when operating in extremely heavy crops and when mowing side hills. They also give the 11 a smoother ride over rough fields . . . greater flotation in soft fields.



6 Mowers—2 three-point hitch models, 2 caster-wheel models, a side-mounted, and a trail-type.

business basis...



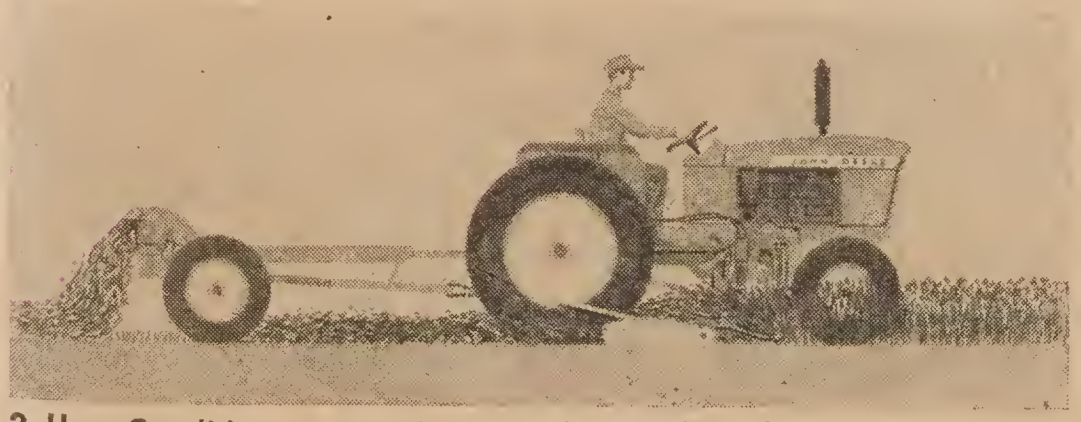
Hay Conditioners

An outstanding feature on John Deere Hay Conditioners is the timed, chain drive to both rolls. This provides smooth, whisper-quiet operation. What's more, constant spring tension enables the rolls to do a 100 per cent job of conditioning. The rolls flex independently at both ends to give-and-take with the varying thickness of material. If an extra-large mass passes between the rolls at either end, only that end of the rolls opens for passage of the large mass. At the same time, if a light mass passes between the rolls at the opposite end, a complete conditioning job is still done on the lighter mass.

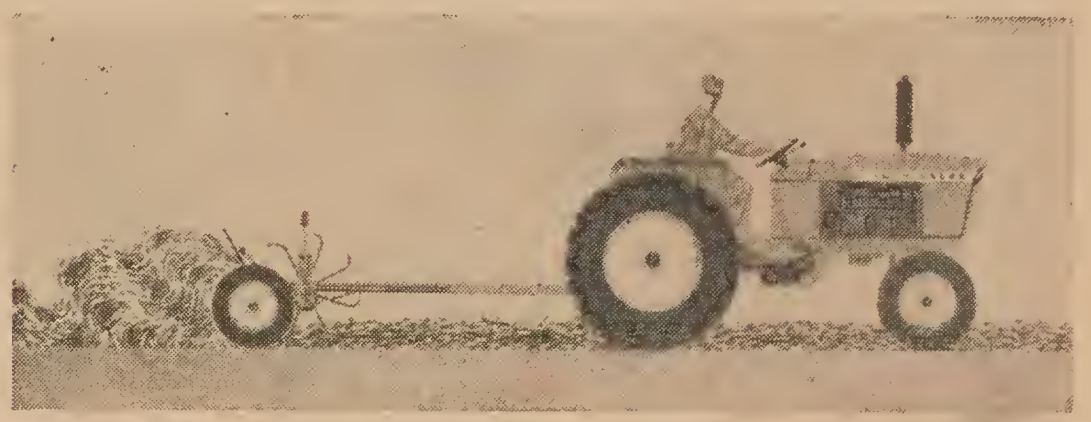


Swath Fluffer

The Swath Fluffer is a low-cost machine that is used to fluff and aerate hay in the swath for faster curing before raking. It is also used to fluff swaths and windrows to speed drying after a shower. The slow reel speed of the Fluffer enables it to handle crops gently to save more feed-rich leaves and small stems. The action of the teeth contacting the hay makes the reel turn. The reel speed, however, is retarded by a ground-driven clutch to approximately 30 per cent slower than the tractor speed. This completely eliminates leaf-shattering kicking and tossing of the crop thereby conserving hay quality.



2 Hay Conditioners—a crimper and a crusher. Combination hookups available for all John Deere Mowers.



Swath Fluffer—gently aerates hay crops at speeds up to 15 miles per hour to reduce curing time.

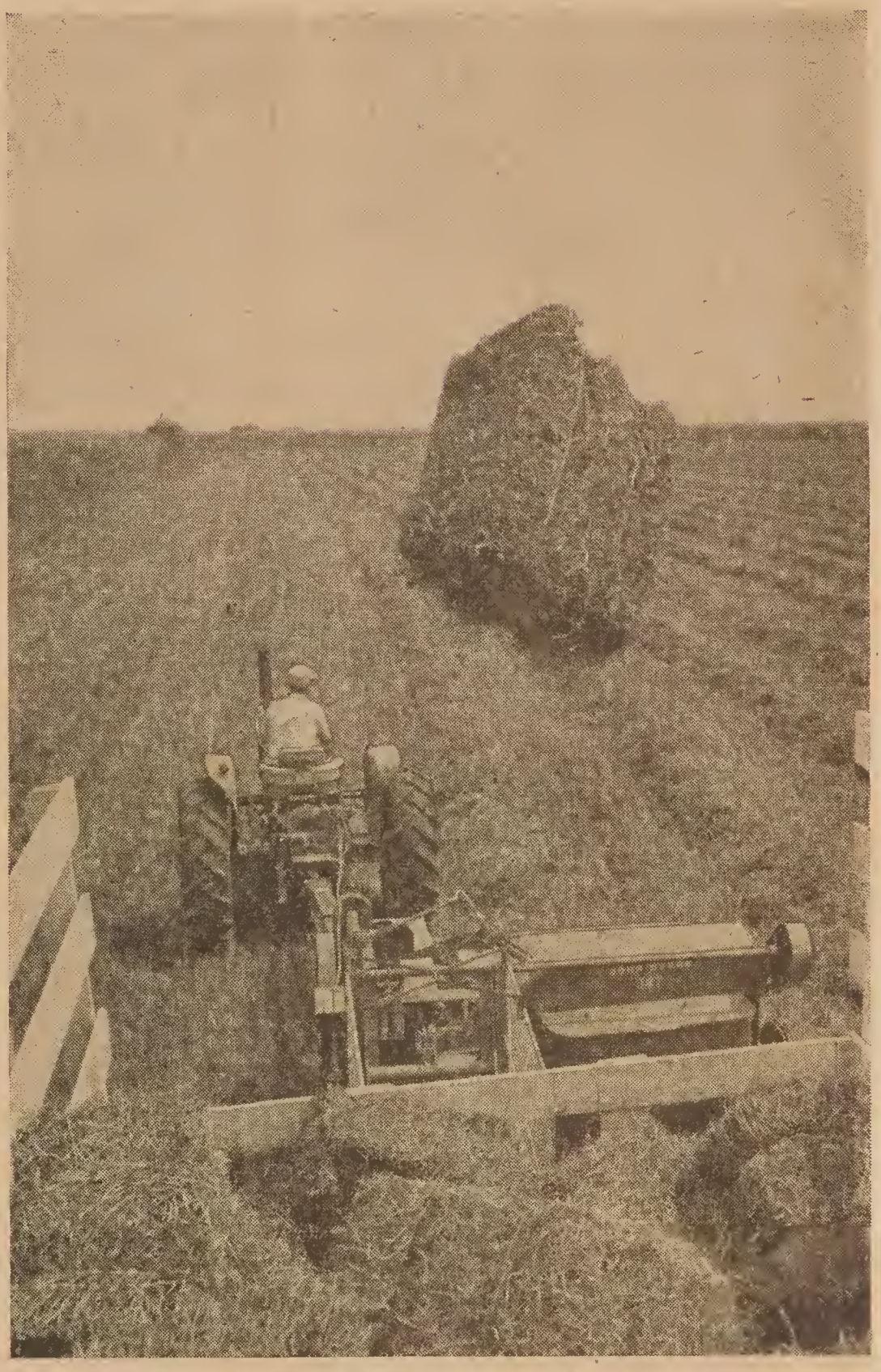
Put your haying on a sound



Rakes

Rubber-Ball-Joint Teeth—a John Deere "first"—on John Deere right-angled-reel rakes last at least 7 times longer than conventional, coil-spring teeth. Tests prove that Rubber-Ball-Joint Teeth withstand over 500,000 deflections; coil-spring teeth fail at approximately 70,000. It takes over 1,100 pounds of pull to separate the steel sections from the rubber ball.

Every feature you want for fast, clean, leaf-saving raking is built into John Deere Rakes. Team up those features with long-lived construction and you've got a hay- and money-saving combination that can't be beat.

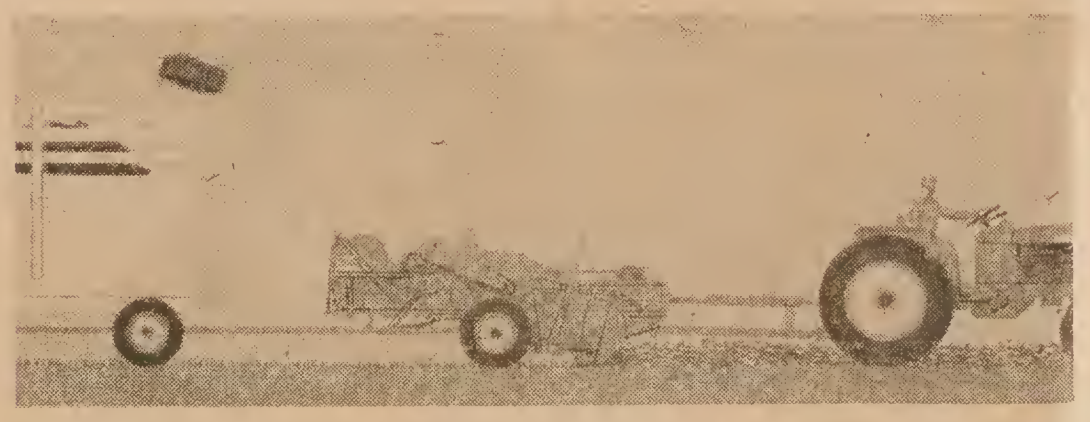


Balers and Ejector

Simply designed with fewer working parts—that's the key to John Deere Baler and Bale Ejector success. Simplicity gives John Deere Balers greater capacity and speed. It makes them easier to operate and adjust. Servicing is a breeze, too. Three of the four John Deere Balers have Multi-Lubers for push-button greasing of all lubrication points in the knotter area. Fewer working parts give John Deere Balers longer life with lower repair costs. The Bale Ejector—another John Deere first—is the only bale-loading attachment that is mechanically driven from the baler—there's no extra engine required.



5 Rakes—3 semi-integral, ground-driven models; a semi-integral PTO model; and a three-point-hitch PTO model.



4 Balers—2 twine-tie and 2 wire-tie models. **Bale Ejector** attachment available for all John Deere Twine-Tie Balers.

JOHN DEERE design, dependability, and dealers **MAKE THE DIFFERENCE**

business basis...



Dryers

A John Deere Portable Dryer takes much of the gamble out of your haymaking—and that's good business. Here's a sure way to reduce weather loss sharply . . . put up more hay per acre . . . and get the greenest, leafiest, highest-value hay ever. What's more, you can finish-cure large or small amounts efficiently, or start small and expand operations later. "Flexible" John Deere Dryers have adjustable fan-blade pitch to meter just the amount of air you need . . . and a modulating LP-Gas burner that's fully adjustable over a wide range to squeeze more value out of your fuel dollar. It holds the temperature you set.



Elevators and Conveyor

Outstanding versatility enables a John Deere Elevator-Conveyor combination to fit your barn regardless of its size, style, or shape. The elevator can be set in line with the conveyor or at a right angle to it. The tubular-steel conveyor can be installed in a straight line or with right-angle turns in it for L- or T-shaped barns.

With a John Deere Elevator-Conveyor combination, one man stores bales automatically . . . without stacking. The storing job is handled from outside the barn . . . away from the mow's choking dust and stifling heat.



2 Dryers—Electric-drive with 5- or 15-h.p. motor; or PTO-drive, for finish-curing of 2 to 4 wagonloads of bales.



3 Elevators—2 for bales and grain; 1 for bales. **Conveyor**—fits any barn.

JOHN DEERE

125 YEARS

See your John Deere dealer soon about your hay tool needs. Make a date for a demonstration.



Federation made this rural church the . . .

HEART OF THE COMMUNITY

By Arthur Moody

BRIGHT lights are on. Cars fill the parking lot. A boy comes in to ask, "Where is the Scout Troop committee meeting?" Answer, "In the kitchen." The Scout Troop is in Fellowship Hall. Trustees have the Nursery tonight. A circle of the Women's Association gathers in the Townsley Room. No wonder the Scout had to ask!

On another night the commodious plant is likely shared by the Civic Association, Youth Group, or others, while a wedding rehearsal is taking place in the Sanctuary. Which illustrates your observer's comment summing up impressions, "Danby Church—It's the Heart of the Community!"

New Pastor

The heartbeat began to strengthen in the summer of 1956, about a month after arrival of Reverend George Clarkson and family. The people already knew they wanted more space and modern facilities and had put aside funds for them.

Danby Federated Church surely had property: Title to South Danby Methodist Church, abandoned for 15 years, now a ghost town due to purchases of government land. In Danby village they owned two parsonages, two church buildings, a one-room school — none of which had modern conveniences.

The heart tempo stepped up. In four years they sold the South Danby church, sold the Congregational parsonage, tore down the old schoolhouse for a new parking lot, had the former Methodist Church removed, and now have built a new addition on the old parking lot—also incorporated the Federation. At the same time they carried on an active church program including worship with regular organist and two choirs, Church School, two youth groups, and several other organizations.

Heart and hands joined in making this plan real. Architect Edgar Townsley submitted three fine sets of plans. The best was chosen, which has added to the beauty of the old Colonial church so emphatically that many stop to admire it. The frame of the new structure was erected by contractors, heating systems, plumbing, roof, windows and studding for partitions. Volunteer labor has done the remainder.

Willing hands have done many things, sometimes dictated by the hearts. For instance: the Methodist Church bell has been placed on the roof of the Church School part of the addition; a new spinet piano was presented for use in the "middle wing"; one room was named in memory of Edgar Townsley, architect; the same room and the Pastor's study were beautifully and tastefully furnished in memory of Dr. Malcolm Miller; an electric mimeograph was furnished; books donated to the growing library. Added have been hundreds of yards of fill, hours of grading, grass-seeding, cement walk-laying to set off the site.

The generous hearts of 260 members, plus constituents, have provided a new building valued at $85,000. At a cash cost of $45,000, augmented by volunteer labor, added to the already fine old Congregational Church, they have provided a home for the hearts of this growing community.

Attendance Sunday mornings runs 175-185. Volunteer organists; eight of them, with one doing most of the work, provide the instrumental music. Two choirs enrich the worship and lead the congregation, which responds with excellent results. A recent evidence of the spirit of the church was a gift of $500 to the pastor, with a two-months paid vacation, allowing him to accept a grant to study in Edinburgh, Scotland, last year.

Federation Success

In referring to the organization's federation Mr. Clarkson believes that certain factors have contributed to its success: (1) It was not rushed at the outset. There is a background of inter-church cooperation going back for a number of years. (2) Another factor was an openness to criticism and change. Its constitution was altered rather considerably each year for the first five years, until it has become fairly stable. (3) Further contributing to success is a rather radical rotation system. At first too radical, it has been tempered by revision so that any church official may remain in office three years, with provision for the financial secretary and treasurer to hold office for six years. Elders, who serve as head ushers, and communion stewards change every year. This gives everyone who will take responsibility a chance for church office.

Earlier Years

Pastor Clarkson characterizes Danby community as rather typical of the pattern in rural New York State: In pioneer days churches were first on a circuit, then saw several Protestant denominational churches starting in small areas, some dying out, with a final move toward unity, realizing wider community relations.

The first church in Danby began as a Congregational Society in 1807. Five different denominations started. One of these was Methodist, which built a church in 1831. The Congregational Church had been built in 1820. At this time there were 60 members. By 1839, 134 had united. An old historic statement states that for a number of years membership held about 150.

During the pastorate of the Reverend Floyd Morris the seeds of cooperation between the churches of Danby were sown. One of the first moves toward unity of the Methodist and Congregational Churches was the co-sponsorship of a Boy Scout troop in 1947. One of the best studies of the Danby community was made in 1946 by Reverend J. Wesley Day as part of his thesis for his Master's degree. He felt that the two churches should be united. In 1951 a federation was formed by congregational vote of the two churches.

In the old days generous hearts gave themselves in labor; for example, Sturgis Williams gave one hundred days work. Reverend Edward Lord recorded that it took the combined efforts of all the able-bodied men of the community an entire week to raise the oaken frame of the Congregational Church. Note the many given hours of mental, physical, skillful and spiritual labor which has given the Danby community such a usable, adequate church.

One of the modern leaders for Federation was Dr. Malcolm E. Miller of the Cornell Veterinary faculty. It was "Mac" who persuaded the present Pastor to accept the call. With this layman, Church and Church School came first. He "sparked" the new plans. He was chairman of the Pastoral Relations Committee, chaired the Trustees and the Church Council. He was active also in the committee on architecture. On his death over $1,000, in lieu of flowers, was given with which to furnish the Pastor's study and the Townsley room.

Looking Ahead

Now new hands are helping the work of this church. The new $15 million campus for Ithaca College is nearby and about half completed. A new school is voted and about to be built. The Church activities have made such growth that they will keep the members, new and old, hard at work for time to come.

As the Pastor looks ahead he visualizes many things: A drama group, just formed, making the Christian message real on the well-equipped stage; a new steeple; new discussion groups; growth in Christian education, a program now possible because of provision for it; an increasing missionary out-reach (easier perhaps because several former pastors have gone to mission fields); and a DEEPENING of the spiritual life. Already Danby Community is a better place to live because this big-hearted, warm-hearted federation is a "LIVE" Church, which makes the future an ever-brightening prospect.



Biggest clearance in the field!

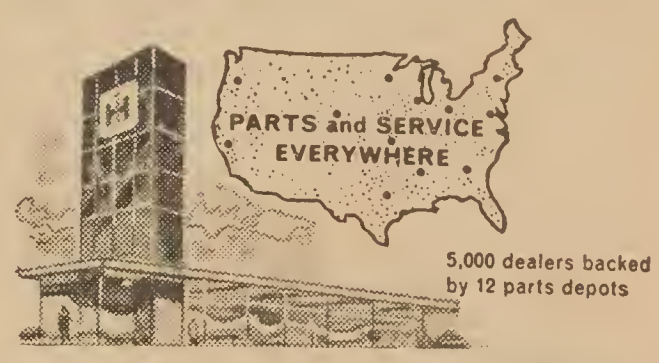
New McCormick® International® 530 plow buries hood-high trash and tangled weeds 12-inches deep, three-point hitch for any 3-plow tractor.

Forget plugging delays . . . plow non-stop, taking all the trash a 16-inch wide, foot-deep furrow can hold. Here's more clearance than any other mounted plow in its class—more than most trailing outfits, too! The big 27-inch vertical and 24-inch rank clearance really pays off. You save time and bother . . . get more uniform plowing, too.

Rugged box-section backbone, famous IH concentrated-strength design, holds beams in perfect alignment for years and years. Your 530 will always pull like new, turning even furrows and leaving clean ridge-free fields behind.

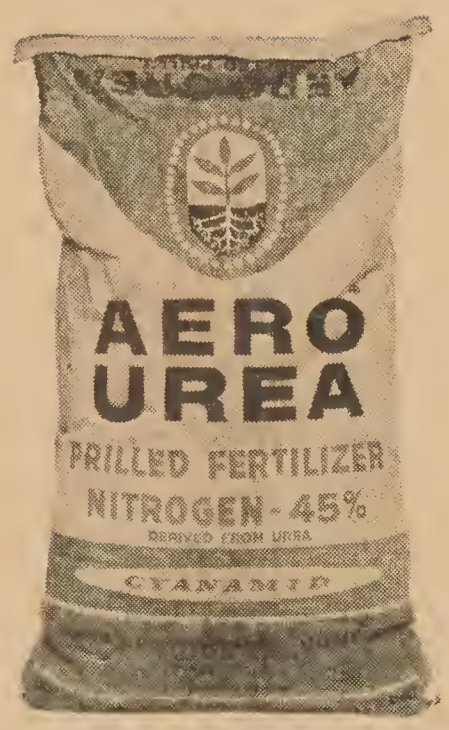
For the first time, you get all these IH plow advantages for use with *any* 3-plow tractor with 3-point hitch. And you can tailor your plow with trip or rigid beams, full choice of colters, and 14 or 16-inch Super Chief bottoms.

Be an Early Trader! Get in on the big IH "Shower of Dollars" by dealing now for your new 530 plow or its 2-furrow partner, the 520, and other IH profit-making equipment. Any purchase totaling $500 or more pays off big. See your IH dealer for details.



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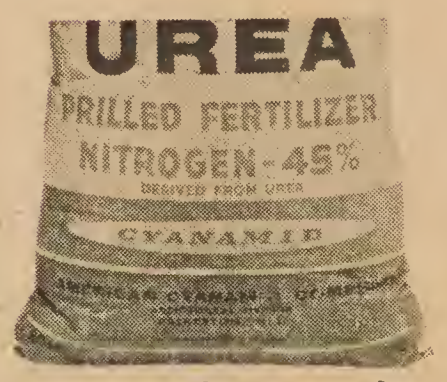
It feeds nitrogen



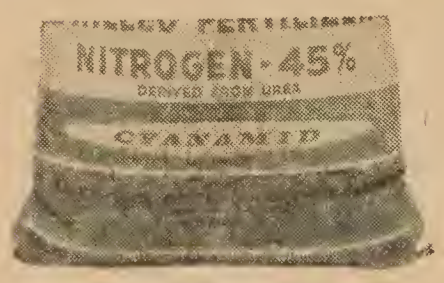
day after day



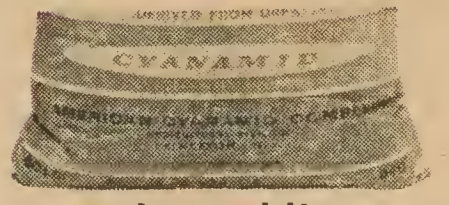
week after week



month after month



as your crops



demand it



right through



till harvest

...but you handle and apply it just once!



That's AERO UREA 45% nitrogen—the long-lasting concentrated, leach-resistant urea fertilizer.

American Cyanamid Company, Agricultural Division, Princeton, N. J. ®*AERO is American Cyanamid Company's trademark for its urea fertilizer.*

CYANAMID

New York State 4-H Dairy Winners

By DENNIS HARTMAN*

EACH YEAR, in cooperation with the State dairy breed associations, the New York State Extension Service selects five 4-H members who have excelled in over-all dairy achievement and herd building.

Holstein

Sharon Bingham, daughter of Mr. and Mrs. Paul Bingham, Rushville, has not only compiled a fine record of achievement, but has also developed an outstanding herd of cattle.



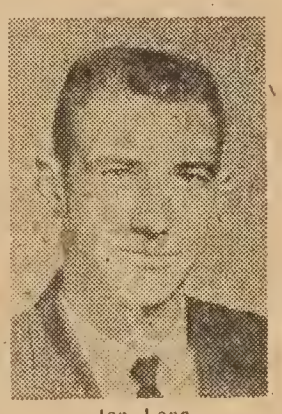
Sharon Bingham

Her 21 head of registered Holsteins include ten descendants of one of her first project animals. Besides her own animals, Sharon has worked closely with her father's herd.

Sharon graduated from The Alfred Agricultural and Technical Institute, and is presently pursuing her interest in dairy cattle, being employed in the Sire Analyst office at the New York Artificial Breeders' Cooperative, Inc., Ithaca, N. Y.

Milking Shorthorn

Jan Lang, son of Mr. and Mrs. J. Martin Lang of Ballston Spa, started his 4-H work in 1955 and since then has accumulated an outstanding all-round achievement record, and is developing a fine herd of Milking Shorthorn cattle. Today, Jan owns seven cows and eight younger animals. Since starting his project he has sold ten bull calves, six heifer calves, and four yearlings. Jan has excelled in showing and fitting, judging, record keeping, and at demonstration work.



Jan Lang

Ayrshire

Douglas DeHart, son of Mr. and Mrs. Raymond DeHart of Cortland, became interested in Ayrshire cattle at an early age. He started his 4-H project with a calf purchased from Claude Miller of Cincinnatus, N. Y. Today, Douglas owns four cows and six younger animals.



Douglas DeHart

He was the Grand Champion Ayrshire Showman at the 1961 State Fair, has developed a good eye for judging, and has been a member of the County 4-H Judging Team for the past three years. He was the ninth high individual in the State Contest this past year. Douglas has also been an active member in the Homer FFA, recently won the Dairymen's League Award for the FFA member best prepared to start farming, and at the 1961 State FFA Convention he received the State Empire Farmer degree.

Guernsey

Mrs. Christel Bauer, daughter of Mr. and Mrs. Wilfred B. Brown of Jamesville, started her 4-H work in 1959, and since then has made an enviable all-around achievement record. Christel developed a Guernsey herd of thirteen cows and seven younger animals, twelve of which were descendants of her third project calf. Recently, she has sold a group of her cattle as foundation animals to the Lake Louise Farm, Dallas, Pennsylvania. Christel has shown her cattle regularly at the 4-H County Show, the NYABC Show at Ithaca, and the New York State Fair.



Mrs. Christel Bauer

In 1955, her "Mianda cow" was Reserve Grand Champion at the Chicago International; at this past year's State Fair, she exhibited the Grand Champion of the Junior Show. In 1957, Christel was a member of the State 4-H Dairy Judging Team which placed first at the International Dairy Judging Contest at Chicago, Illinois.

Brown Swiss

Carl Goodwin, son of Mr. and Mrs. Charles Goodwin, Guilford, is developing a fine herd of Brown Swiss cattle. Of the 17 animals which he now owns, fifteen are of his own breeding.



Carl Goodwin

He has excelled in record keeping, demonstration work, dairy cattle judging, and exhibiting his cattle at the local and State Fair. Carl is president of the Chenango County Dairy Club, is a junior leader in his own club, and is on the State 4-H Council Board. He has made an enviable record in projects other than dairy, completing projects in sheep, swine, poultry, gardening and engineering.

Jersey

Lloyd Johnson, son of Mr. and Mrs. Virgil Johnson, Friendship, started his 4-H Club work in 1950, and since then has made excellent progress in the field of dairying. Today, Lloyd owns ten cows and five younger animals, eleven of which are of his own breeding.



Lloyd Johnson

In 1957 and 1959 Lloyd received the Allegany County Dairy Award for all-round achievement. He has also completed project work in areas such as poultry, gardening, forestry, sheep, and pheasants. At present Lloyd is enrolled as

(Continued on Page 41)

*4-H Club Livestock Specialist, Cornell University



Make choice hay faster!

Only the McCormick® International® mower and hay conditioner combination assures you of hay that's ready to bale the same day!

Mow and crush hay in one fast trip to save time and preserve feed value. New "pit-manless" mower assures faster "hay in a day" mowing speeds. And only the IH *double* rubber roll conditioner crushes *all* hay stems completely from end to end to let hay dry baler-ready the same day, without artificial drying!

New 120 semi-mounted mower hitches to most tractors, and it was specially built to work with a hay conditioner. Precision-balanced wrist-action drive permits sickle speeds up to 500 strokes per minute faster than other mowers. This lets you cut 30% faster in comparable conditions.

Cut curing time in half with a 2A conditioner behind this high-speed mower. Cushioned-action rubber rolls on this conditioner save millions more rich, tender leaves. *Double* rubber rolls crack stems completely to let hay dry quicker than with any other type conditioner. Flexing action of truck-tire rubber makes tough IH rolls self-cleaning. And they're stone-proof, too. These quiet-running rubber rolls are today's big difference in hay conditioners!

See your IH dealer! Deal now for this speedy mower-conditioner team and you can collect an Early Trader's Bonus in cash!



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MERCK

CATTLE HEALTH BULLETIN

CAKED UDDER CAN'T BE PREVENTED . . . IT CAN BE TREATED

Caked udder or mammary edema is frequently encountered in high-producing heifers and cows shortly before or after calving.

The painful swelling—which often extends from the floor of the chest to the udder—can result in a serious loss of milk revenue for 1 to 2 weeks or longer. If the condition is neglected, or is a chronic problem at calving time, the udder attachments may break down prematurely and reduce the productive life of a valuable animal.

CAUSE OF CAKED UDDER STILL NOT KNOWN

The exact cause of caked udder is still not known. Most cases, however, are due to the strain placed on the heifer or cow as they prepare for the onset of lactation. The changes in blood protein brought about by the formation of immune bodies for the colostrum or first milk, are believed to be important contributing factors.

NOTE: A change in feeding practices, such as a reduction in grain, will not, in most cases, prevent udder edema. In fact, reducing the grain intake of high-producing animals just after calving may increase the possibility of ketosis or acetonemia.

NEW VETERINARY DRUG PROMISES PROMPT RELIEF OF UDDER EDEMA

Caked udder can now be treated with a new, effective drug, DIURIL® Boluses available from your veterinarian. Ineffective, time-consuming practices such as the use of massage, mild liniments, bag balms, and hot Epsom Salt packs can now be eliminated.

After treatment with the blue DIURIL Boluses, under the direction of your veterinarian, you will probably see and feel a difference in 24-48 hours as the hard, tender and swollen bag becomes soft and pliable. Warning: milk taken from dairy animals during treatment and for three days after latest treatment, must not be used for food.

DIURIL Boluses for caked udder or mammary edema problems — before and after calving — are available only through your veterinarian.

MERCK CHEMICAL DIVISION
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Rahway, New Jersey

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TOP Roughage Producers



Left to right are: Sherwood Martin, Eugene Erway, C. Kenneth Gordon, Gleason Burdick, Jr., Elmer Martin, and Leroy Buss. See story below.

By GORDON CONKLIN

PICTURED above are Grassland Club winners from the Keystone State, named by the Pennsylvania Grassland Council. They were honored at the last annual meeting of that organization for a top job of providing roughage for their dairy cows. Here are some details of how they do it:

● **Sherwood Martin**, New Geneva, has 71 cows whose most recent production record was 11,340 pounds of milk and 519 of fat. He uses green chop for summer feeding; cows are in the barn during the day, but are turned out on a paved barnyard at night. A hay drier helps insure top quality, early-cut hay.

In 1961, Sherwood used Eptam on new seeding to control weeds. He prefers alfalfa alone, rather than a mixture, when it comes to filling the seeder box. Another chemical, Atrazine, took care of weeds in corn last year and helped in producing a tremendous yield, estimated at 200 bushels of dried shelled corn per acre.

● **Eugene Erway**, Coudersport, operates a 478 acre farm and has 37 milkers boasting an annual production average of 15,509 pounds of milk, 597 of fat. One cow has a record of 24,000 pounds and just over 900 pounds in these two categories.

Forage testing of samples from this farm for the last three years has shown hay as having 60-66 percent TDN, corn silage about 61 percent TDN. "We learn a little more each year about forage from this service," Gene says.

A considerable amount of pea vine silage is fed from a pit silo. Gene reports that it makes milk, but doesn't keep the cows in flesh as corn silage does. As for hay, more and more birdsfoot trefoil is being used because alfalfa doesn't do well except on a few fields. Hay is dried with two mow driers.

Cows are pen stabled and hay is available at all times, but silage is not fed free choice. The herd has only five acres for "pasture"; green chop during the summer, plus some silage, makes up that season's roughage ration. Gene comments, "I like to have the cows where I can see them and be sure what they're eating."

Beginning in 1961, the Erways used a self-propelled windrower to cut, condition, and windrow hay all in one operation. "It took a week for some of it to dry," Gene says. "The top of the windrow bleached out, but it stayed green as it dried underneath."

Mowing is started as early in the morning as possible, regardless of the amount of dew; Gene had as much as 55 acres of hay down at one time last year. After drying sufficiently, windrows are rolled over once before baling; next stop is the mow drier.

● **Gleason Burdick, Jr.**, York, believes in feeding hay to his herd often. In winter, this means five times per day—after finishing morning milking, again after cleaning the barn, at lunch time, after the night milking, and finally when the final "tour" of the barn is made around 10 p.m. Hay bales containing different varieties of alfalfa, or composed of varying mixtures of grasses and legumes, are fed at different feedings in an effort to tickle the appetite a little more. Corn silage is fed twice a day, just before each milking.

Speaking of alfalfa varieties, the Burdicks use a combination of alfalfa varieties to spread out harvest —DuPuits leading off, then Ranger or Buffalo, and finally Vernal. First cutting is mowed and crushed at the pre-bud stage; the other three cuttings at one-fourth to one-half bloom.

Hay is fed the year around to their 34 milkers; a portable rack in the pasture is always full of hay during the summer. The forage testing service at Penn State reports that this hay last year ran around 57-60 percent TDN; corn silage about 61 percent.

Gleason figures that hay ground counts as cropland too, so he fertilizes it. Right after the first cutting, 200 pounds per acre of 0-15-30 is applied; another 200 pounds of the same material is applied after the third cutting.

● **Elmer Martin**, Chambersburg, uses no corn silage and practically no hay to feed his 73 milking cows. He emphasizes quality in producing grass silage; Penn State forage testing reports show it has about 51 percent TDN. "I wouldn't be without forage testing," Elmer comments. "The feeding recommendations over the past three years have brought about a jump in milk production — on a ration that is cheaper per ton."

He begins green chopping rye about April 15, then rotates cattle on pastures of bluegrass, birdsfoot, ladino, and orchard grass until July 1. Green chopping then takes over the main load of roughage provision until nearly November 1, chopped rye comes in again for two weeks at this time of year, and grass silage carries the herd during the winter. Hay is fed only if grass silage runs out.

In 1961, Elmer put up 1,100 tons of silage, all covered with plastic in a trench. The inventory of major equipment is kept to a minimum — two tractors, a wagon with false endgate, a flail chopper, and a PTO manure "spreader" with detachable forage box. The latter is used once a year to haul manure from the pen stable; it works the rest of the year, with the forage box enlarging its capacity, at hauling silage and green chop to the feeding bunk.

In the winter, silage is fed once a day in a bunk seven feet wide. It has a ramp at each end so the tractor, and spreader loaded with silage, can be driven right through the bunk. During the summer, the spreader is used twice a day to haul green chop into the bunk in the same fashion. The feeding area is entirely paved, a "must" in Elmer's opinion.

● **C. Kenneth Gordon**, McConnellsburg, has 180 acres of cropland, 243 acres in the farm. His 43 cows, housed in a stanchion barn, posted an average of 12, 042 pounds of milk, 488 of fat. He uses a system of rotation grazing, moving cattle from one pasture area to another for maximum TDN per acre.

He has "gone heavy to birdsfoot," now has 72 acres planted to this legume.

● **Leroy Buss**, Nazareth, has 35 acres of forage crops to support his 19 milkers that average 9,520 pounds of milk. He uses Buffalo alfalfa for seedings and reports an average yield of hay in 1961 in excess of six tons per acre. Part of Leroy's secret of high yield is the application of 100 pounds of actual nitrogen in liquid form to meadows, plus some manure topdressing.

The Penn State forage testing service reports TDN levels of 65-72 percent on hay from the Buss farm, 64 percent on corn silage. A mow drier is used for top quality hay and early cutting is the rule. Leroy tries to make hay of first and second cuttings at the pre-bud stage; hits the third cutting at early bloom, then goes back to pre bud stage for the fourth cutting.



Bale and load 6 bales a minute without help!

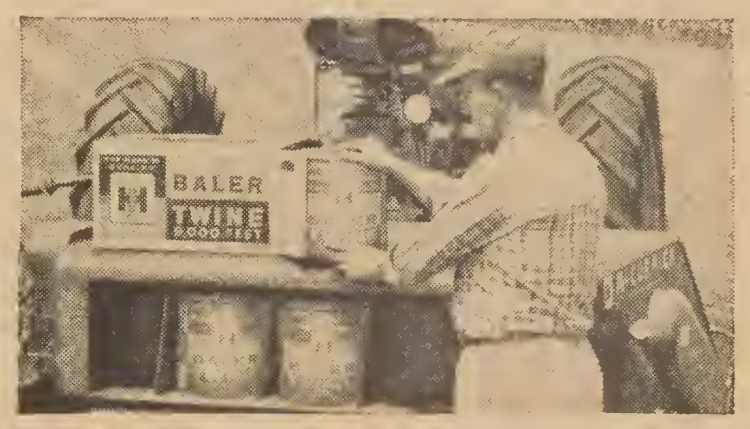
Popular McCormick® International® 46 Baler with No. 10 Bale Thrower cuts costs by making you a one-man baling crew!

Bull's-eye! Watch those 60-lb bales hit the wagon without a miss, *even on turns!* This haymaking outfit packs, ties, and loads up to 10 tons per hour as you drive along. Slow-downs or rest stops for the man you used to have on the wagon don't delay haying any more. And you do the whole job all by yourself, right from the tractor seat!

Field-proven 46 Baler is famous for its simple design and free-flowing hayway from windrow to bale. Watch this outfit work, and you'll wonder why all balers aren't built this way! Look at features like the leaf-saving, low-level pickup. Watch the floating auger and triple packer fingers whisk hay into the bale chamber . . . spread it evenly for firm, square bales. No complicated feeding gadgets on this baler. Exclusive IH knotters, with fewer but huskier parts, put two non-slip ties on every bale.

Labor-saving bale thrower has cleated rubber rollers which take the bale as it leaves the chamber and toss it into the wagon. Bale thrower has its own air-cooled engine. Just speed it up to load the rear of the wagon . . . slow it down to load the front!

Your IH dealer will demonstrate! Deal for this labor-saving outfit now and get an Early Trader's Bonus in cash.



Strong, pliable, tieable McCormick® International® baler twine costs less to use than so-called "bargain" twines. Full 9,000 ft per Quality-Guard carton ties 500 bales. Chemically treated to resist insects, rodents, rot.



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New York "Measured Acreage" Shows DeKalb Yield Power



129.24 Bushels per Acre from "Measured Acreage"(1.08 Acres)

William G. Carney, Dansville, Livingston County, has raised DeKalb Corn for 18 consecutive years. He is enthusiastic about DeKalb Variety 222 having had high yields in previous years, particularly 1959 and 1960. In 1961, on a carefully measured acreage (1.08 acres), he harvested 129.24 bushels of DeKalb Corn per acre. Mr. Carney fall-plowed, used 350 pounds per acre of 12-12-12 fertilizer, sprayed for weeds and planted over 30,000 kernels of DeKalb Variety 222 May 10, 1961.

127.02 Bushels per Acre from "Measured Acreage"(1.19 Acres)

At Auburn in Cayuga County, Raymond A. Tripp planted DeKalb Variety 222 on his "Measured Acreage" (1.19 Acres) last year and harvested 127.02 bushels per acre. Mr. Tripp made two fertilizer applications: 500 pounds of 10-10-10 per acre were plowed down and 70 pounds of nitrate were sidedressed. DeKalb Variety 222 at 19,035 plants per acre, gave Mr. Tripp his yield of 127.02 bushels. Plant DeKalb in '62—ALL DeKalb.

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Commercial Producers & Distributors of DeKalb Seed Corn, DeKalb Chix and DeKalb Hybrid Sorghum
"DEKALB" is a Brand Name. The number is a Variety Designation.

Order **DEKALB CORN** *Now!*

Ask Your DeKalb Dealer About Other Outstanding DeKalb Varieties

Planted by More Farmers Than Any Other Brand for 22 Straight Years

MAIL THIS MONEY-SAVING COUPON



FOR SPRING PLANTING

100 GLADIOLUS BULBS

IMPORTED FROM HOLLAND...only $1

If you send this Coupon before May 15 you can get 100 GLADIOLUS Bulbs, imported from Holland, for only a penny a bulb! These bulbs from the flower center of the world usually produce a rainbow of blooms in colors as available from stunning reds, yellows, pinks, purples, whites, crimson, violet and multicolor, etc. These bulbs are small blooming varieties already 1" to 1½" in circumference. Any bulb not flowering five years replaced free. Act now to get this wonderful bargain in time for spring planting. Limited Time Offer. Send today only $1.00 plus 35c for postage and handling. C.O.D. orders plus postage. Bulbs mailed at spring planting time.

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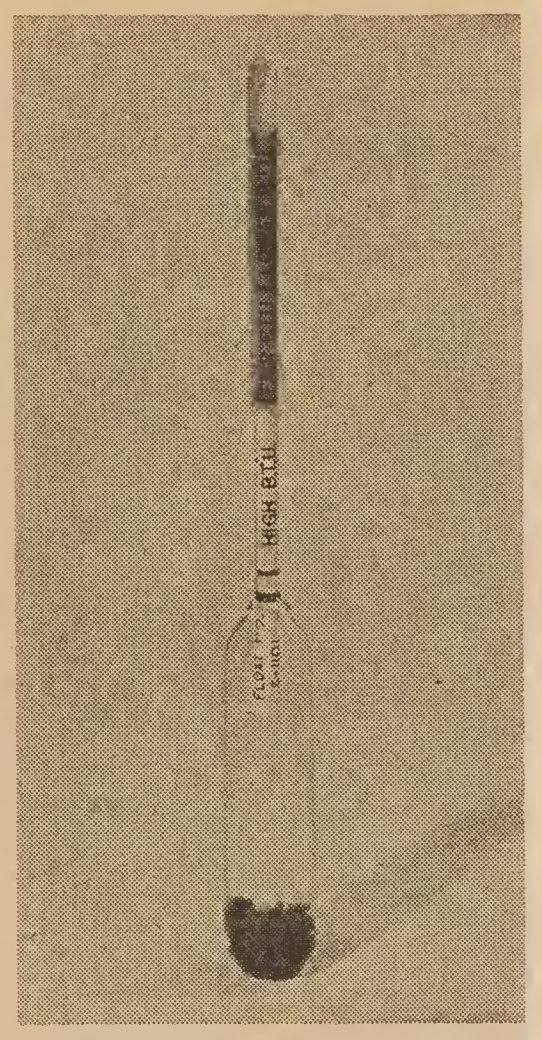
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This hydrometer can save dollars by helping to select the proper fuel for use with diesel engines.



Ever Meet A BTU?

Here's some advice on getting the most from your diesel fuel dollars

By W. E. IRWIN*

BUYING diesel fuel by the gallon is like buying potatoes by the dozen—the true value of each depends upon its weight, not its quantity. Yet it's not likely we'll change the standard unit for dispensing liquid fuels in this country . . . the gallon.

No, BTU is **not** the abbreviation for Big Time Unioneer; it stands for the British Thermal Unit, which represents the amount of heat required to raise the temperature of one pound of water one degree. It takes these heat units to produce horsepower. The work content of a gallon of diesel fuel, or the BTU's (heat units) per gallon, is directly proportional to the weight of that fuel. For a given volume, heavier fuels contain more BTU's, or work potential, than do lighter fuels. The typical No. 2 diesel fuel has 7,100 more BTU's per gallon than the typical No. 1 fuel. This represents over 5% more work output—and that's not the only gain.

Lower Cost

Heavier fuels which have more BTU's also usually cost less. A farmer will save on just a difference in price of 1 cent per gallon between No. 1 and No. 2 diesel fuel. In some areas the price differential is frequently several cents. By using the heavier fuel, work output can be increased if the same amount of fuel is used, or fuel consumption can be lowered if the same output is maintained.

Fuel weight is usually expressed as a specific gravity or API gravity. The specific gravity of a fuel is the ratio of its weight to the weight of an equal volume of water at a given temperature. API gravity is derived from an empirical formula, and is such that the larger the API gravity number, the lighter the fuel. **Do not be misled by API gravity numbers.** The **higher** a fuel's API number, the **lower** its work capacity.

The weight of fuel oil, or, technically speaking ,the specific gravity of the oil which represents the BTU content, can be measured with a hydrometer, a float with a calibrated scale that is read at the surface of the liquid. Inexpensive but accurate, hydrometers are available to determine whether a fuel has a high, fair or low BTU content. The hydrometer illustrated here has a scale divided into three areas. The lower or green area indicates high BTU fuel. The middle or blue area represents fair or medium BTU content. And the top or red area indicates relatively low BTU content.

Check Reading

The lower green area has a small horizontal mark near the middle which represents a specific gravity of approximately .866 at 75°F. This falls in the No. 2 fuel oil range. The upper horizontal mark near the middle of the top or red area represents a specific gravity of approximately .816 at 75°F. This falls into the No. 1 fuel oil ranges. Since temperature affects a fuel's gravity and volume, large volumes of fuel should be purchased at some standard temperature, usually 60°F. Other temperatures can be used so long as the temperature corrections are known. As an example, 10,000 gallons of fuel at 80°F. is 9,920 gallons at 60°F.

The responsibility of getting the most economical fuel from the supplier rests with the user. A hydrometer should be used to check each batch of fuel purchased to assure full benefit. Every diesel engine user owes it to himself to get the most for his fuel dollar while staying within the framework of the engine builder's fuel specifications. Know what you are buying. Shop around if necessary to purchase fuel that best meets the needs of your engines and is easiest on your pocketbook. Fuel suppliers will cooperate; they want to serve the market to the best of their abilities.

**Service Department, Caterpillar Tractor Co.*



". . . About six months ago . . . you had a sale on toy terriers!"

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EASTERN EDITION

AMCHEM FARMER

EASTERN EDITION

Current Information About Weed and Grass Control Published by Amchem Products, Inc., Ambler, Pa., St. Joseph, Mo., Niles, Calif.

WEEDS STILL WASTE BILLIONS!

AMIBEN APPROVED!

New Weed Killer Now Available For Use on All Soybean Acreage

AMIBEN, Amchem's remarkable new herbicide for killing annual broadleaf and grassy weeds, has now been officially approved by the United States Department of Agriculture for use on soybean crops grown for all purposes.

The Federal OK climaxed several years of intensive testing, toxicity investigations, evaluation studies by state and federal agencies, extension demonstrations, and highly successful field-scale applications of AMIBEN.

College research personnel active in this testing program have stated for the record, "AMIBEN *is the most promising pre-emergence herbicide for soybeans we have in tests and approved for use today.*"

In 1961, AMIBEN was offered to some of the largest soybean seed producers in the country. The objective of this program was to give AMIBEN thorough field testing by actual producers under actual growing conditions. Frequent progress reports were received from the test farms, and both crop and weed response were watched closely. In practically every case the results were rated "excellent," the few exceptions occurring when there was no rainfall.



Weed infested field of soybeans.

These tests were under complete control of the individual seed producers. Each of these individual growers reported AMIBEN results on the basis of their own experience, taking into consideration such variables as weather conditions, soil type, weed infestation, application technique, and any other factors with which they had to contend on their own farms.

Results confirmed what earlier research had already shown. AMIBEN kills the major annual weeds infesting soybeans, broadleaf as-well as grass. AMIBEN does its job at 2½ to 3 pounds per acre over-all. For economy, it can be applied in bands over the row and the middles cultivated. Excessive rates sometimes produced temporary stunting, but never reduced soybean yields. AMIBEN didn't "disappear" in 2 or 3 weeks, but gave nearly season-long control, lasting at least until the soybean plants could lap the middles and shade out sprouting weed seedlings.

AMIBEN doesn't stay in the soil over winter to harm succeeding crops, so there's no problem when it's planting time again. AMIBEN doesn't affect the germination of seed beans. This has been proved on virtually every major commercial variety. AMIBEN has clean handling characteristics. It is devoid of irritation and hazards in use.

AMIBEN was conceived and developed for soybeans. Seldom has there been a chemical weed killer that is so safe to use on a crop, and yet so effective in controlling both broadleaf and grassy annual weeds. This is *truly selective weed control!*

SOIL TYPE NO PROBLEM

Like most pre-emergence herbicides, AMIBEN requires adequate soil moisture to do its work. However, it is remarkably undemanding. Half an inch of rain within a week after application is enough to get it working. With heavier rain, another of its advantages appears. Although AMIBEN is an easy-to-use water-soluble chemical, except in very light sandy soils rain causes a minimum of leaching. Tiny soil particles hold AMIBEN on the surface to do its work there instead of allowing it to be washed below, where it would be ineffective.

During its testing period, AMIBEN was applied to crops growing in every major kind of soil. Wherever it was used — sandy loams, clay loams and muck soils—AMIBEN proved its over-all superiority and effectiveness. Whether you grow soybeans in Mississippi or Minnesota, Illinois or Delaware—any soybean state, any soybean soil — AMIBEN will prove its worth in controlling your most annoying annual broadleaf and /or annual grass problems.

In areas where light soil types crust over during dry spells, the rotary hoe is being used to allow beans to emerge uninjured. This practice does not reduce AMIBEN's effectiveness. In fact, it often seems that yields are even better where this has been done.

Growers who were able to try AMIBEN on limited acreages of seed beans in 1961 have the advantage of knowing what AMIBEN will do. Those who have not had this opportunity owe it to themselves to try a small acreage (there's not enough available for large acreages) in 1962.

We urge you to read the story on page four of this section which describes the unique features of AMIBEN in controlling soybean weeds and grasses. On the basis of versatility and effective killing action, use on different types of soil, no injury or effects on the bean, safety in handling and longevity of treatment, AMIBEN fills the need for an entirely dependable, pre-emergence herbicide better than any known chemical in use today.



Clean, weed-free soybean crop after application of new AMIBEN.

Amitrol-T the All New Liquid Amitrol Kills Enemy Weed No. 1

Canada thistle—the weed without a friend—has finally met its Waterloo. The amitrol in Amchem's AMITROL-T is consistently producing 90 to 95% kills with a single properly applied treatment. 100% kill is frequently obtained.

AMITROL-T affects the soil for only a week or so after application, and is much cheaper than soil sterilants. So far, no resistant thistle strains have appeared as has happened with 2,4-D.

State Experiment Station authorities characterize AMITROL-T's performance as "amazingly successful" and say farmers using it have reported fewer complaints than with any other chemical treatment.

IDEAL STAGE FOR TREATMENT

The primary key to eliminating Canada thistle with AMITROL-T is proper timing. The ideal stage for treatment is when the thistles are in bud, before they actually bloom. "Treat any time you see buds" is a good general rule. Thorough coverage is also very important for satisfactory results.

Canada thistle is deep-rooted and begins to appear later than most other weeds. Patches are strongest in the center, and shoots appear and bloom earliest there. Thistles in the center may be 6″ tall when shoots on the edges are just appearing. Buds appear about 2 to 3 weeks before they open. This provides the needed safety period to balance uneven emergence.

Treatment delayed beyond the budding stage will produce unsatisfactory results, but farmers should also avoid treating patches of Canada thistle with AMITROL-T too soon. Early in the season, many shoots are still underground. These are not affected by spray. They appear at the normal time, and may give the false impression that the spray solution was ineffective. Maximum emergence before treatment is essential.

MATURE THISTLES

If thistles mature before being treated, they can be clipped. The regrowth responds well to AMITROL-T if sprayed when it is about 6″ tall. This fact can often be taken advantage of late in the season after crops have been harvested.

Three logical times to use AMITROL-T for Canada thistle control are after the grain crop has been taken off, after mowing infested pastures, or before planting corn. The most suitable time may be after a grain crop has been harvested, when mowed regrowth has reached a height of 6″ to 10″. For example, if spring oats are taken off the beginning of July, thistle regrowth will be ready for treatment by September.

The possibility of spring treatment depends largely on the weather. In a cool spring, thistles may not be tall enough to treat before corn is planted; therefore, thistle ground should be tilled the previous fall so thistle emergence is not delayed in the spring. The soil can be disced two weeks after the thistles have been sprayed with AMITROL-T and then be seeded to corn immediately.

Thistles growing in pastures can be spot treated with AMITROL-T in summer when they are in the bud stage.

(Continued on page 4 of this section)

Useless Land, Reduced Crop Yields Cause Staggering Losses

Educated estimates place losses suffered by American farmers due to weeds at anywhere from slightly more than one billion dollars to four billion annually. Soybean and corn farmers experience an estimated loss of 640 million dollars each year. In Texas alone 74 million acres of brushland are rendered useless for cropping or grazing.

These figures — representing crop yield reduction and wasted land due to the incursion of weeds—are shocking. They represent a chronic, king-size headache for the farmer that no aspirin can cure.

POWERFUL CHEMICAL WEAPONS

In the face of this situation, a whole new segment of the chemical industry has come into existence to help the farmer. From 2,4-D and 2,4,5-T, the first selective weed killers (both originated by Amchem®), to the new amitrols (another Amchem development) a whole battery of increasingly specialized weed killers is now available for your use to destroy weeds and return once-good land to productive use. Wherever you farm, whatever you grow, there is a specialized weed killer weapon for you to use against undesirable vegetation.

NAME YOUR WEED PROBLEMS

Take WEEDAZOL®, for instance. It is the amitrol killer, specifically developed for certain hard-to-kill perennial weeds. For Canada thistle, all over the country; for poison ivy in the East, for whitetop in the West, WEEDAZOL's powerful chemical action works systemically to stop normal growth and kill completely and economically.

A new Amchem development, AMITROL-T, is liquid amitrol in its newest and most effective form. It offers users the convenience of a liquid amitrol with even more killing power than the dry amitrol formulation on quackgrass, cattails, phragmites and poison ivy. AMITROL-T is helping to solve the quackgrass problem in Eastern and Central corn areas and being a liquid it is mighty handy to measure and mix.

AMIBEN, latest of Amchem's selective weed killers, is being called the most effective chemical ever developed to help eliminate the $200 million annual soybean loss to weeds. Now available for food crop use, unlike any other existing weed killer, AMIBEN controls both annual broadleaf weeds and grasses in soybeans without injuring the crop.

KILLS WITH ONE APPLICATION

Morning glory? bindweed? creeping jenny? possession vine?—whatever you call it, wherever you find it—is being killed, thanks to BENZAC®, the double-duty weed killer. BENZAC works through both the foliage and roots to kill growing weeds with one application. And it keeps right on working for a full season or more to kill weed seedlings as they sprout.

Amchem's *prime* 2,4-D formula—WEEDONE® 638—is gaining in popularity with farmers who have weeds they can't kill with regular 2,4-D. WEEDONE 638 is the pure acid of 2,4-D bolstered with special ingredients which produce highly stable emulsions for ease in mixing and spraying. It also has special ingredients which aid penetration of the weed's waxy leaf coating; which aids translocation through the plant's entire system to give a slow and more complete final kill.

(Continued on page 4 of this section)

EDITORIAL

How's Your 2,4-D I.Q.?

A bit of elementary knowledge seems to escape a sizable segment of our farming population: *2,4-D weed killer formulations are NOT alike.* There is a difference—a BIG difference, in 2,4-D's—between formulas and the quality of comparable formulas. These differences depend on the chemical ingenuity that went into compounding them . . . the years of experience and the probing tests that preceded their marketing. There is also the integrity of the maker—the dedicated manner in which his chemists and field technicians pooled their resources, to make better products to solve specific weed problems.

This, then, is what lies behind Amchem weed killers. It's a story of work which has saved farmers untold expense and endless hours of drudgery. It's a story worth repeating: Amchem Products, Inc., pioneered the development of 2,4-D as a selective weed killer, patented and introduced it as the world's first truly effective selective weed control chemical. Amchem maintains its own special experimental farm, its own staff of laboratory and field research specialists and works closely and continuously with leading agricultural colleges. On this evidence, we believe you'll agree that Amchem knows plenty about chemical weed control.

Because Amchem knows what you have a right to expect and get from a weed killer, the quality of its products has not been and will not be compromised to meet price competition. Amchem formulates 2,4-D to do specific jobs on your farm: WEEDONE LV4, the original low-volatile butoxy ethanol ester form of 2,4-D is less hazardous than other esters when used near susceptible crops. Because it provides better penetration through the leaves and better movement into the root system, it is effective on many weeds which resist milder forms of 2,4-D . . . WEEDONE CONCENTRATE 48, the "ethyl-ester" form of 2,4-D that can be mixed with oil or water and gives fast knockdown to a wide variety of weeds. This is the "work horse" weed killer for small grains . . . WEEDAR 64, the amine form of 2,4-D which should be your choice when you need safety for nearby crops and efficient control of annual weeds and weed seedlings.

If you've been disappointed with the results of your 2,4-D weed killer, ask yourself two questions.

"Did I fit the weed killer to MY problem?"

"Did I buy quality or did I buy price?"

Long after you've forgotten the initial cost, you'll remember the final results. That's what counts! If you don't like the answers, then try the products of the people who patented 2,4-D in the first place and who have pioneered most of the major advances in chemical weed killers from the start . . . AMCHEM.

Powerful Brushkiller Invented in 1948 Still the Most Effective for Farm Use Today

It is a wonderful tribute to the outstanding qualities of Amchem's WEEDONE BRUSHKILLER 32 that it has consistently withstood the tests of time and competition on the thousands of acres on which it has already been used. After 14 years, it is still the most effective combination of 2,4-D and 2,4,5-T in a brush- and weedkiller formula. Literally, dozens of brushkillers have attempted to duplicate WEEDONE BRUSHKILLER 32 in name and claim, but its performance has yet to be surpassed.

WEEDONE BRUSHKILLER 32 was developed in 1948 specifically for the farmer. It contains the butoxyethanol esters of 2,4-D and 2,4,5-T. The comparative safety of these low volatile esters was the deciding factor in determining their use as the active ingredient in WEEDONE BRUSHKILLER 32.

CONSTANTLY IMPROVED

In the intervening years, as a result of experience gained through use of the product in the field, improvements have been continually incorporated in the formula in order to keep it "the best." Among these improvements was the discovery of the proper ratio of 2,4,5-T to 2,4-D to obtain the most economical combination for killing bramble, briars and other *resistant* brush, as well as all other types of brush and weeds.

FORMULA IMPROVED

As more powerful surfactants and emulsifiers became available they were included in the formula; only enough oil was added to aid penetration of the waxy leaf surfaces without producing a too rapid leaf or foliage burn. An excess amount of oil would reduce the effectiveness of the treatment. Since the 2,4-D and 2,4,5-T must translocate to all growing parts of the brush and weeds for a complete kill, WEEDONE BRUSHKILLER 32 contains special additives which insure entry and movement through the plant.

Small wonder then that WEEDONE BRUSHKILLER 32 has retained its popularity over the years, for here is a formula so versatile you can mix it in water or in an oil-water mixture for foliage spraying; or you mix it in straight oil for basal spraying or for frill and stump solutions.

Sesone Saves Up to 75 Percent Hand Weeding in Strawberries

Most strawberry growers will agree that hand weeding is an expensive proposition—it takes a lot of time and a lot of people, and that has to come out of your profits.

That's where SESONE comes in, the outstanding chemical for controlling weeds in strawberries, recommended by the USDA and most of the strawberry growing states.

SESONE takes the *human element* out of weeding because it kills weeds as they sprout, whenever they sprout. Here's the remarkable feature of SESONE that means so much in a highly specialized crop like strawberries. In spray solution SESONE is completely inactive. Only after the solution comes into contact with moist soil does it release its weed killing action. This action comes within hours after SESONE is sprayed and the active chemical immediately attacks the roots of emerging weed and grass seedlings.



Clean, weed-free strawberry beds, made possible through the efficient chemical weeding action of Amchem SESONE.

SESONE goes a long way. A single application will stay active on the soil for 4 to 6 weeks to kill weedy plants as they sprout. Think what this can mean in higher yields as your crop grows with increased vigor without weed competition!

Since it is inactive while in solution SESONE has no effects on growing weeds. For this very reason it is harmless to established growing strawberries, to the foliage, the blossoms or the growing fruit.

Once you start using SESONE you can forget about the high labor cost of hand weeding and hoeing. Clean, soluble, free flowing SESONE mixes in water with convenient ease to provide complete preemergent control of grasses and weeds. Apply over the row for economy, or a coverall spray over established strawberry patch or field for easy application. Pigweed, purslane, lambsquarters, chickweed and crabgrass are only a few of the many weeds and grasses that SESONE can keep out of your strawberries.

While highly successful on strawberries, SESONE has many other uses. As a pre- and post-emergence weed control in peanuts, on nursery stock, perennial flowers, bulbs, corms and tuber plants.

Things to do—get SESONE from your Amchem Dealer, check the label for full details. Ask for Folder #1818.

Amizine is "Tops" for General Farm Cleanup

Who isn't proud of a trim looking farm! But with everything else you had to do last summer, maybe you couldn't get around to your general farm housekeeping. You know . . . shaggy weeds and grasses around buildings and equipment storage areas, overgrown fencerows and paths, and the like.

Weeds are more than just an eyesore. They are a source of seed that spreads over your farm, a fire hazard, a nesting place for rats and mice, and a threat of rot and rust to idle equipment because they trap moisture. Controlling weeds by hand is hard work and time-consuming, taking away valuable time from other farm operations.

If you want to be sure this chore gets done—quickly, safely, easily—it's time you got to know AMIZINE®, another useful Amchem chemical weed killer. It contains *two* powerful weed killing chemicals. One kills growing weeds and grasses, while the other stays in the surface soil to attack sprouting weeds and grass seedlings but doesn't leach down to injure trees whose roots are in the treated area. AMIZINE is ideal for general farm vegetation cleanup purposes because of its safety and the double duty nature of its chemical formulation.

FULL-SEASON CONTROL

You can count on controlling your weeds for a full season with a single application of AMIZINE. Compare this modern, sensible way with constant grubbing, roguing, burning and other forms of hand labor and you can see why you should now choose the easy AMIZINE way.

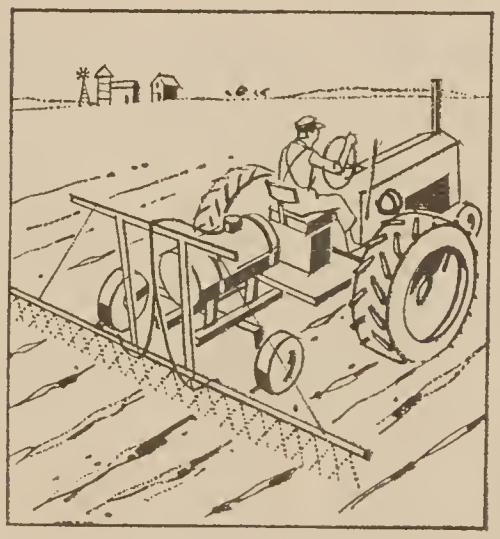
It's quite simple to apply AMIZINE. You can use any type of knapsack or pressure sprayer, or even a watering can. AMIZINE mixes easily and can be rinsed out just as easily when the job's done. And remember, AMIZINE is nonflammable, does not corrode metal and contains no arsenic.

Application timing is convenient, too. You can treat with it in the spring when fields are often too wet for crop work, or later in the year if that suits you better.

Things to do—Be prepared to keep ahead of nuisance weeds and grasses . . . Get AMIZINE now for use as soon as weeds begin to grow . . . Ask your Amchem dealer for AMIZINE FOLDER #1763A.

MOST POPULAR FARM CHEMICAL APPLICATION METHODS

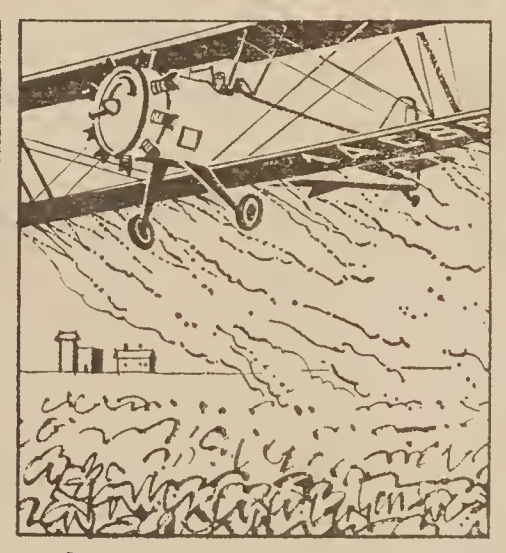
Selective weed killers must be applied at recommended rates with proper equipment to do the amazing job they're designed to do. You can't slop them on and make it pay! Correct calibration, proper nozzles and the right applicator can be the difference between success and failure. Illustrated here are 4 of the most popular methods of chemical application.



Tractor-borne boom sprayer is most popular choice when using liquid weed killers.



Knapsack or power take-off sprayers are preferred to control weeds in ditches, fencerows, etc.

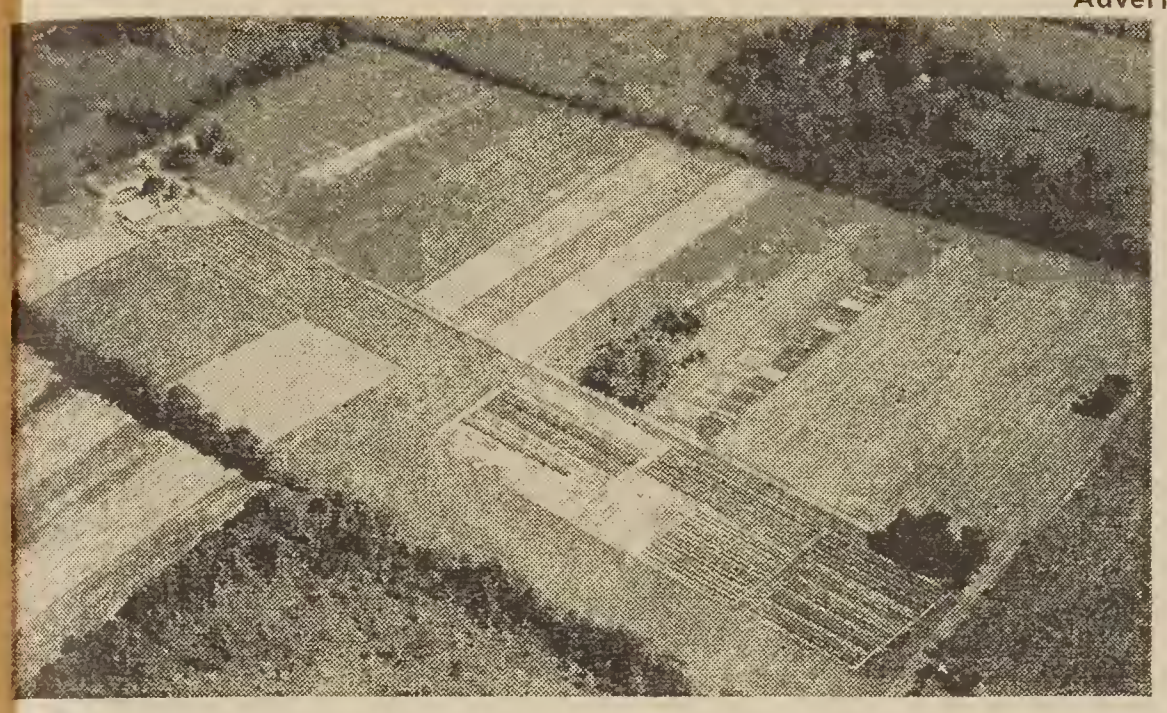


Contact an established applicating firm for best advice on the use of aerial sprays.



Tractor-borne granular spreaders are available for use with the granular form chemicals.

Advertisement



Aerial view of part of Amchem Research Farm

Weeds are the Principal Crop at Amchem Experimental Farm

Extensive Tests Precede Release of Weed Killer Chemicals for Use on Your Farm

Amchem grows annual and perennial weeds with as much tender care as you give to your most valuable cash crop, and under the most favorable conditions imaginable. Canada thistle, leafy spurge, Johnson grass, foxtail, quackgrass, etc. all get "VIP" treatment at Amchem Products, Inc., Research Farm, Ambler, Pennsylvania. Amchem weeds are just about the healthiest you can find and for very good reason: THEY ARE GROWN SO THAT THEY CAN CAREFULLY BE DESTROYED IN THE EVALUATION OF NEW IMPROVED CHEMICAL WEED KILLERS.

Amchem, originators of 2,4-D and 2,4,5-T weed killers in 1944, has long specialized in finding and developing chemicals to control weeds and brush for agriculture. By specializing, our Company has been able to make major contributions to this industry's progress.

Amchem's research-development program, including primary and secondary screening to find new uses for chemicals, is your insurance for the future. Screening receives major emphasis at Amchem.

Statistically, one chemical out of every 1,000 screened is of enough interest to warrant further study. Of these chemicals, one out of every five *may* become commercial. Net, one chemical out of every 5,000 screened (0.02%) has a statistical chance of becoming commercial—if we are lucky! To a degree, these odds can be reduced by bringing to bear Amchem's wealth of experience in the field; that is its forte.

TEST 16 PLANT SPECIES

Chemicals are selective in their biological activity on plants. Some chemicals affect broadleaf plants without affecting grasses; others affect grasses without affecting broadleaf plants. Some can control broadleaf weeds growing in a broadleaf crop; others control grasses growing in a grass crop. Therefore, it is desirable to test each chemical candidate against a broad spectrum of plant species. Eight broadleaf and eight grass weeds and crops we use have been chosen because: (1) they represent a cross section of economically important weeds and crops; and (2) they can be grown uniformly under greenhouse conditions.

Some chemicals kill growing plants but have little or no activity on germinating seeds when applied to soil. Other chemicals kill germinating seeds but do not affect growing plants. Therefore, Amchem's primary screening technique includes spraying one flat of plants before seedlings emerge from the ground and another flat 2 to 3 weeks after plants emerge.

If a chemical shows promise in primary screening, it is studied further in secondary screening. This is not routine in the sense that primary screening is, but is tailored to the chemical. This is where the imagination and initiative of the research staff are brought to bear. Tests are conducted in the greenhouse and on the farm to "zero in" the optimum rate, method and time of application, influence of moisture, temperature, soil organisms, etc., crop injury, tolerances and residues, and the host of other variables which must be resolved before field development.

FIELD DEVELOPMENT— A CO-OPERATIVE EFFORT

Amchem chemists prepare a chemical for field testing by working out the best formula possible. The first consideration is chemical efficiency, but this must be balanced with commercial considerations such as shelf life, freezing and flash points, ingredient availability, odor, hazard to personnel, ease of application, etc. Thus, when a formulation goes to college (or experiment station) for further field evaluation, it is in—or almost in—commercial form.

After two or more years of field testing all over the country, if the chemical still measures up to all yardsticks, this data and our residue and toxicity data is gathered and combined into a thorough report which is taken to Washington for approval by USDA and FDA. You can be assured that once labeling is approved and accepted, the chemical can be safely and effectively used as shown on our label. This procedure takes a minimum of five years. The chemical is now ready for your farm.

Weeds are not the only plants grown on the Amchem Research Farm. Woody plants such as red maple, locust and oak are grown in uniform stands to evaluate brush killers. Wheat, oats, corn, legumes, sorghums and vegetable crops such as asparagus and tomatoes are raised so weeds and weed killing among these crops can be studied.

FARM IS EXCHANGE CENTER

The Farm is not only Amchem's "living laboratory," it is an exchange center for chemical and agricultural information concerning weed growth and control. Many workers in State and Federal experimental stations, county agents and other agricultural officials are periodic visitors to the Farm.

Out of all this work, it is the constant aim of Amchem to not only improve the developments we have already put on the market and which you are putting to use, but to come up with new weed killer agents which will solve your weed problems and make your farming a more profitable venture.

Amchem-Originated Amitrol Knocks Out Deep-Rooted, Perennial Weeds

Eradication of Canada Thistle, Poison Ivy, Cattails and Other Weeds Resistant to 2,4-D now Practical

While 2,4-D continues as the chemical weed killer workhorse for an impressive list of weeds, there are certain persistent deep-rooted perennials which require something more specific. The development of AMITROL by Amchem (WEEDAZOL or AMITROL-T, you know) has and can continue to cut sharply into this comparatively short remaining list.

Some explanation of the mode of action of WEEDAZOL and how it ties in with what goes on inside a plant will help you get best results when using this chemical.

First of all, foliage must be present, preferably on rapidly growing plants. The WEEDAZOL is applied as a water-soluble spray solution to the leaves. After WEEDAZOL has been sprayed on susceptible weeds, it moves rapidly to all parts of the plant, especially the tissues growing most actively. Its disturbance of normal growth processes is complex. Probably most important, the formation of chlorophyll is interrupted. Chlorophyll, of course, is the marvelous green matter in leaves that is able to transform the energy of sunlight into food. Without chlorophyll, new growth of WEEDAZOL-treated weeds is white, and the helpless plants ultimately die. As the chemical slowly exerts its effect, old weed growth becomes splotchy, looks starved, and eventually dries up.

WEEDAZOL KILLS DEEP-ROOTED WEEDS

Killing the weed tops stimulates into growth the dormant root buds that make many perennial weeds so hard to really *kill*. WEEDAZOL's AMITROL stays in the plant long enough to move into these reserve buds as they begin active growth, and doomed shoots appear—feeble, white, and not long for this world. It is easy to see why WEEDAZOL is the most practical and efficient chemical you can use for weeds with extensive root systems!

WEEDAZOL IS CLEAN TO HANDLE

Another remarkable thing about WEEDAZOL is its inherent clean handling qualities—instant solution, odorless, non-irritating, no fire hazards, corrosion, or soil sterilization to contend with.

In addition to its proven qualities in killing weeds (ask any of your neighbors who have used WEEDAZOL), you'll appreciate the fact that it's quite economical as well. A little goes a long way. For instance, picture a solid stand of Canada thistle, two rods long by one rod wide. We're talking about a solid stand of thistle that fills every square inch. How much do you figure it would cost to return this area to a usable piece of land that doesn't threaten the rest of your fields—two dollars, three, five? WEEDAZOL will clear it up for just 25¢! And you'll do the job faster, cleaner and safer than you'd believe possible.

Considering the job WEEDAZOL does, the time and work it saves, it is really low cost weed eradication . . . and nothing does a more thorough job of killing Canada thistle, poison ivy, cattails and other hard-to-kill perennial weeds than WEEDAZOL.

LIQUID AMITROL-T KILLS QUACKGRASS BETTER

For those of you who want the convenience of a liquid formulation, AMITROL-T is liquid AMITROL in its newest form and is even more effective on certain specific weeds such as quackgrass, cattails, phragmites and milkweed. On the other problem weeds, AMITROL-T is just as effective as WEEDAZOL.

AMITROL-T is at least twice as effective as WEEDAZOL for controlling quackgrass. Where corn is to be grown, it should be applied as a pre-plow treatment in the spring when quackgrass is 4" to 6" tall. Deep plowing 10 to 14 days after treatment turns the quackgrass sod under, smothering it and completing the lethal effects of the spray. The land should be fitted and planted to corn as soon as possible after plowing.

AMITROL-T is a ready-to-mix liquid for preparing instant water spray solutions. Like WEEDAZOL, it is clean to handle, creates no fire hazard, doesn't corrode equipment, and you don't have to worry about sterilizing the soil. AMITROL-T offers the same qualities and economies as a sure-fire killer of many perennial weeds. Either way, you get rid of Canada thistle, poison ivy, quackgrass, cattails, and many other weeds that plague farmers but needn't!

Things to do — get WEEDAZOL or AMITROL-T from your Amchem Dealer. Ask him for the following folders: WEEDAZOL Folder #1536B; WEEDONE 638 Folder #1544D; CANADA THISTLE CONTROL PROGRAM Folder #1647A.



Canada Thistle test plot. Circular area in center of picture was treated with WEEDAZOL in June. Photo was taken one year after application.

Advertisement

Amiben Meets a Vital Need for a Dependable Soybean Weed Killer

In their very early growth stages soybeans are very poor competitors with the more aggressive weeds and grasses where soybeans grow. As the weeds and grasses in the row compete with the beans for space, sunlight, and plant nutrients, they contribute to direct losses in yields, difficulty in harvesting, and lower bean grades.

University of Illinois workers have shown just how a few weedy plants in the bean row can grossly affect the yield of soybeans. For example, it takes only six giant foxtail plants per foot of row to cut the soybean yield by four bushels per acre compared with a weed free row. As the incidence of weeds, like foxtail, in the row become greater, yield is reduced even more substantially. If there are fifty foxtail plants in a foot of row you can lose as much as 28% of your total bean yield.

In extremely weedy fields, cultural practices to reduce the weed populations can only do a small part of the job, and then only if conditions are ideal (early and continuous cultivations, no excessive rainfall, etc.) can some headway be made. As you already know, in these extremely weedy fields, many cultivations will not remove the weeds completely from the row.

The logical answer, then, is a pre-emergence herbicide designed specifically for soybeans that really works . . . this is AMIBEN.

Here is the way AMIBEN works to do the job.

Applied when the soybeans are planted AMIBEN goes into the soil solution in the upper surface layer of the soil. When the weeds and grass seedlings sprout they come in contact with the protective layer of AMIBEN and are killed. This is done by root absorption. The result is sudden death for the young weed and grass seedlings. Soybean plants, being completely tolerant of AMIBEN, come up through this protective zone and begin to grow and thrive without competition from weeds and grasses for light, water, and nutrients. The result . . . a head start on a vigorous protective crop.

You've already had experience with good pre-emergence treatments for corn and for cotton, now you have one for soybeans. There are several advantages which you can gain by adapting this new pre-emergence chemical AMIBEN to your production of soybeans. First of all, where you have weedy fields, you know from past experience those weeds are going to be there when your crop comes up next spring. With a pre-emergence AMIBEN treatment at planting time the chemical kills these weeds and grass seedlings as they sprout, removing them before they have a chance to come up and become established. Another advantage is that when the chemical is applied at planting time and you get a spell of wet weather afterwards, you can rest assured that the chemical will hold the weeds and the grasses even though you couldn't get around to cultivating, if you wanted to. If you apply a band treatment the soybean row will be protected, then all you will have to do is to clean out the middles when weather and time permit. Third, as far as the weeds in the middles are concerned you can handle these under good conditions with cultivations. But let's face it, with weeds in the row, you just can't get them out with mechanical equipment. And last, a pre-emergence treatment will permit you to make application at exactly the same time you plant, which in itself is a labor saving operation and once you have done it with AMIBEN you have taken the guess work out.

Weeds and grasses are still your #1 problem in soybean production. This you know, especially in the face of rising labor and all other costs going into producing this crop. Isn't it time to turn to a more efficient, a more effective, and in the long run a more economical way to handle this problem. We think you will agree it is. It is gratifying to know that the colleges, the research people, and the farmers who have tried it say that AMIBEN is the most significant soybean weed killer development of this time.



Look at the clean weed-free corn crop above and you can quickly figure out how Amchem's new quackgrass control program with AMITROL-T can help you bring in a more profitable crop.

Corn Farmers Tell How to Kill Quackgrass

Amitrol-T Providing up to 98 Percent Control

We could tell you in a couple of thousand words why AMITROL-T is the best quackgrass control chemical you can buy. But we'll let two Midwestern Farmers give you the reasons in their own words.

UP TO 98% CONTROL

Out at Seward, Illinois, Harlan E. Fry, Proprietor, Seward Produce and Supply had this to say about his experience with AMITROL-T. "In April and May of 1961 I custom sprayed 244 acres of corn ground with AMITROL-T. Quackgrass infestation in all cases was severe. We got from 90 to 98 percent control of quack. This material is extremely easy to handle. Mixes well and stays mixed much better than dry forms. AMITROL-T is by far the best quackgrass killer I have used."

TOOK 5 TO 6 DAYS

On the cornfields of William A. Jones, Egan, Illinois, AMITROL-T got this kind of results.

"In April of 1961 I treated ten acres with AMITROL-T to do away with quackgrass prior to planting corn. The field I treated was badly infested. I used one gallon AMITROL-T in twenty gallons water after the quack was about five inches tall, and within five or six days all existing growth was dead. I would estimate about 97 percent kill, as there was very little quack in the corn at cultivating time. The treated part was much easier to cultivate than the untreated, because of absence of quack. I plan to treat, according to my regular rotation, from 15 to 20 acres each year until my entire acreage that is infested is cleaned up. Why bother with quackgrass when you can knock it out with AMITROL-T."

AMITROL-T is the heart and core of an Amchem-developed quackgrass control program that permits you to clean up your field while you grow a corn crop. This program unlike many others, can be used in the spring when you can most logically get to it. And it's as easy as it is effective.

Ten days to two weeks before you intend to plant corn, spray solid fields or patches of quack with water solution of AMITROL-T (one gallon mixed with water covers an acre). Then, ten days to two weeks later, when grass has whitened, plow thoroughly and prepare for planting. Plant corn, then spray 2½ pounds of ATRIZINE 80W at planting or immediately afterward. Culvtiate when corn is five to six inches tall. This cultivation will not affect the activity of the Atrazine and will further weaken the quack rhizomes which are struggling to survive. It's that simple!

AMITROL-T takes care of the quack while Atrazine gives good control of annual weeds and annual grasses such as foxtail. Experience shows no build up of harmful residues which would restrict your rotations. This program really pays off in rotations where you wish to follow corn with soybeans, or small grains underseeded with legumes for hay. With this program you can still be cutting high quality legume hay after the third year.

A MORE ECONOMICAL PROGRAM

Where you desire to "release" corn from quackgrass competition and the aim is to grow corn on otherwise low productive quack infested ground, spray with AMITROL-T as described above. (2 gallons to eradicate—1 gallon to reduce established quackgrass.) Wait 10-14 days, plow and plant corn immediately. Skip the Atrazine treatment; cultivate normally; kill broadleaf weeds with WEEDONE LV-4.

Amitrol-T New Liquid Weed Killer

(continued from first page this section)

They can also be treated after pastures have been mowed. This is especially practical where the pasture is to be plowed in the fall. After mowing, thistles should be sprayed with AMITROL-T when the regrowth is 6″ to 8″ tall.

Farmland values are lowered wherever Canada thistle is found. It competes with crops for nutrients and moisture. Cattle will not touch it in pastures, and hay bales containing its prickly leaves are mighty unpleasant to handle. Buds the same size and density as peas plague canners, increasing processing costs. If thistle colonies are not disturbed, it is estimated that the creeping rootstalks may reach out a rod a year, enlarging the diameter of the patches 2 rods annually. Prepare to end this problem once and for all by asking your dealer for AMITROL-T.

Weeds Still Waste Billions

(continued from first page this section)

Where economics would not permit you to kill large areas of bindweed (morning glory) with BENZAC or where these areas must be kept in production, WEEDONE 638 is the logical answer; or where you have large acreages of Canada thistle, leafy spurge, and other problem weeds, you could reduce this problem and increase crop production at the same time while growing grain crops such as corn, wheat, barley, rye, and grain sorghum. Reduced to smaller patches, these weeds can now be eliminated economically with WEEDAZOL or AMITROL-T.

WEED KILLERS FOR EVERY PURPOSE

Chemical weed killers today are better than they've ever been—in selectivity, killing power, longer life, ease of application, safety and economy. Wherever weeds are a problem—in your crops, on non-cropped land, around farm buildings, in ponds—there are chemical weed killers available that are just as necessary as tractors and cultivators for keeping your farm on a paying basis.

Poison Ivy Is Easily Killed

Weedazol Gives Safe Clean Control with One Application

Spray it and forget it — that's how easy it is to kill poison ivy now that WEEDAZOL is on the market.

Poison ivy, the irritating bane of farm workers, campers, and little children, should be tolerated no longer. It doesn't even have to be avoided. With WEEDAZOL, it can be completely *eliminated* and become only an unpleasant memory. And this can be done without damaging valuable plants nearby!

WEEDAZOL is the safest and most effective material ever used for killing poison ivy. This comparatively new product seems to have a special affinity for poison ivy—it takes less WEEDAZOL to kill poison ivy than is required for any other weed.

EASY TO USE

And WEEDAZOL is so easy to use. It's tailor-made for the job, easy to handle, easy to mix, easy to apply, and easy to store. In addition, WEEDAZOL does not give off vapors which might injure nearby plants, it does not sterilize the soil, and it is readily rinsed from spray equipment.

Poison ivy can be sprayed any time after the leaves develop fully and lose their spring softness. While it is killed most readily during the summer, good results can be expected any time until leaves start changing color in the fall. Response to treatment may start slowly, first in the form of small black spots speckling the leaves. Next, the leaves begin to droop as though they needed water, and finally they wither and die. WEEDAZOL moves down the stem from the leaves into the roots, killing the entire plant, so there can be no resprouting.

At the rate prescribed for poison ivy control, WEEDAZOL appears to be partially selective. It has been found that poison ivy vines growing on mature trees can be sprayed safely if care is taken to keep the solution off the tree's leaves. However, getting spray on grasses should be avoided as they are sensitive to the chemical and will turn white. (Unless the area has been soaked with the spray solution, the grass usually resumes its normal color within a few weeks as the whitened portions grow out.)

PERFORMANCE PROVED

Experiment station workers, familiar with WEEDAZOL's deadly effect on poison ivy, are puzzled by the lack of community interest that allows poison ivy to persist in public places, from small picnic areas to many-acred parks. In Michigan, for instance, perfect results were obtained from application to a municipal park's shore lines. In Pennsylvania's historic Valley Forge Park, poison ivy was cleared from 500 acres of woodland heavily populated with dogwood and other valuable plants so it would not cause suffering among a Boy Scout Jamboree's 50,000 inquiring campers.

Community or neighborhood campaigns can clean up this pest, buying WEEDAZOL in bulk quantity and sharing spray equipment. Nothing is more gratifying than checking a sprayed mass of poison ivy from its first wilting to the final shedding of the dead leaves. But be careful. Even the dead stems will still contain the sticky sap that causes the skin irritation. Treat them with respect for a year, or, if they must be torn up, take precautions to protect the skin from direct contact with them. And don't forget that smoke from burning vines can give a severe case of poisoning.

Don't wait until summer to buy WEEDAZOL. You know you're going to have poison ivy—get your supply of WEEDAZOL now!

New York

Livestock Champions

By H. A. WILLMAN*



Robert Coene



David Pinckney



Joseph Krenzer



Judy Swick

TO BE cited as a New York State 4-H project champion in beef cattle, sheep, swine or horse club work is one of the fine honors that may come to a boy or girl.

Beef winner — Annually, an ever increasing number of success stories in herd building and leadership training come out of the 4-H program. Robert Coene, Ontario, Monroe County, a seventh year 4-H beef member, now owns eight head of registered purebred Hereford cattle.

Robert has carried many other 4-H projects and has been especially successful in vegetable crops work and in growing corn. He is now leader of the Stockman 4-H Club, having moved up in leadership to assistant leader after having helped to organize the club and having served as its first secretary and president.

Sheep — Seven years ago, David Pinckney, Cayuga, Cayuga County, started his 4-H project with two ewes. Since then he has developed a flock of 22 breeding sheep and has sold 41 ewes, rams, and wethers.

David, after helping organize the Cayuga 4-H Sheep Club, served as its president for three years. He has been active in church and Sunday school and is a member of the church choir. While in high school, he was active in sports and played in the band.

Hogs — Seven years ago, Joseph Krenzer, Caledonia, Livingston County, selected his first Berkshire sow pig from a former 4-H boy, Marion Tyler of South Byron. He now maintains a five sow herd and a boar and has sold over 200 pigs since he started his 4-H project.

Joseph has been very active in many phases of the entire 4-H and FFA program, having served as an officer in his local FFA chapter. He is now vice president of the Livingston County FFA chapter, and was recently appointed as news reporter for the Livingston 4-H Club Council.

Horses — Miss Judy Swick, Ovid, Seneca County, now a seventh year 4-H member, has a record of high achievement and full participation in many phases of the entire 4-H program and in extracurricular activities in high school. She not only owns ten head of horses, four of which are out of her own mares, but she has successfully completed projects in clothing, cooking, poultry, pheasants, swine and dairying. Added to her numerous show-ring winnings in county and state competition, she has received equal recognition in record keeping and for her public 4-H demonstrations.

Others succeed, too — Many of the other county **beef cattle** nominees for the State 4-H Beef Project Award made very fine records, too. Among these top members who submitted complete achievement reports were Richard Cuddeback of Cayuga County; Andrew Marchisio, Columbia; Thomas McCloy, Cortland; Robert Bassett, Rensselaer; Rose Cuddeback, Cayuga; Robert Pearson, Columbia; George Kaye, Dutchess; Alan Kozlowski, Erie; Kathy Blood, Genesee; Roger Palmer, Madison; Katherine Crowell, Ontario; Timothy Dennis, Steuben; and William Welcher, Wayne.

Very exceptional **sheep** records were also compiled by several 4-H members since they bought their first sheep. Among these members who submitted excellent sheep achievement reports were Dale Wilson of Columbia County; Thomas Sloan, Cortland; Randolph Cole, Erie; Mary Ellen Eiss, Jefferson; Virginia Andrews, Livingston; James Baird, Monroe; Edward Mills, Ontario; Charles Brinkerhoff, Seneca; Conrad Cook, St. Lawrence; and Carolyn Stewart of Steuben County.

Among the county champion 4-H **hog producers** who submitted accumulative achievement reports, the following received an Award of Excellence: Gary Hutchinson of Allegany County; Tim Blodgett, Chautauqua; Richard Cook, Erie; John Scofield, Jefferson; Theodore Holdsworth, Monroe; and Ronnie Smith of Wayne County.

Among the county champions who tried out for the State Award by submitting a record of their accumulative **horse project** achievements, the following received an Award of Excellence: Marilyn Marsh Joslyn of Albany County; Judy Frazier, Allegany; Linda Weatherall, Cattaraugus; Gerald Nelson, Cayuga; Beverly Winn, Columbia; Marlene Congdon, Cortland; Orman McNeilly, Delaware; Richard Snyder and Arlene Foreman, Niagara; James Pacelli, Oneida; Janet Nash, Onondaga; Carol Ann Parshall, Otsego; Betty Kuhn, Rockland; Carol Beagle and Joan Corp, Saratoga; Ken Chichester, Schoharie; Sandra Lawrence, Steuben; Gloria Deiterich, Ulster; and Bonnie Westerman, Wayne County.

*Cornell 4-H Livestock Specialist

What Is A "Strong" Wind?

Terms used in official forecasts	Miles per Hour	Wind effects observed on land	
Light	1-3	Calm; smoke rises vertically. Direction of wind shown by smoke drift but not by wind vanes.	
Moderate	13-18	Raises dust and loose paper. Small branches are moved.	
Strong	25-31	Large branches in motion; whistling heard in telegraph wires. Umbrella used with difficulty.	
Hurricane	75+	Rarely experienced; accompanied by widespread damage.	

Whatever the wind, do "blow in" to G.L.F. for facts on best use of fertilizers and seeds on 40 acre fields or 40 square foot gardens. And plan your field work with WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Plattsburgh	WEAV-FM	99.9 mc.
Troy-Albany-Schenectady	WFLY-FM	92.3 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Plattsburgh	WEAV	960 kc.
Binghamton	WKOP	1290 kc.	Poughkeepsie	WKIP	1450 kc.
Boonville	WBRV	900 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Remsen-Utica	WREM	1480 kc.
Elmira	WENY	1230 kc.	Salamanca	WGGO	1590 kc.
Hornell	WWHG	1320 kc.	Sayre, Pa.	WATS	960 kc.
Ithaca	WTKO	1470 kc.	Schenectady	WGY	810 kc.
Jamestown	WJTN	1240 kc.	Scranton, Pa.	WEJL	630 kc.
Newark	WACK	1420 kc.	Syracuse	WHEN	620 kc.
New York	WQXR	1560 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Walton	WDLA	1270 kc.
Olean	WHDL	1450 kc.			

Northeast Radio Network

GLF Quality

Brought to you at 7:15 A.M. by the Cooperative G.L.F. Exchange, Inc.

Feed Additives For Beef Cattle



DR. WISE Burroughs of Iowa State University recently sent us a summary of experiments on feed additives in beef cattle rations. The results of more than 400 experiment station tests from all over the country are combined in the accompanying table.

Tests of feed additives in one place have often given different results than tests somewhere else. Averaging the findings of many tests tends to offset the effect of some chance variable that might be present in one experiment.

The "net return" figures in the table take into account the values of extra gain in weight from additives, cost of additional feed, any variation in dressing percentage and grade, as well as the cost of the additive.

The report states that progressively larger doses of estrogens, such as stilbestrol, gave progressively larger liveweight gains. However, carcass grades were lowered by higher dosages—something to keep in mind when figuring the economics of the practice.

In fattening cattle, placing stilbestrol in their feed proved superior in almost all cases to all types of ear implants when considering feed savings and carcass grade. Fattening heifers responded to stilbestrol almost as well as steers.

On the average, most antibiotics tested in cattle rations over the years have improved liveweight gain and improved feed efficiency in cattle from 3 to 4 percent. This improvement was greatest in low-gaining, high-roughage rations, and smallest in high-gaining, high-concentrate rations.

Some 72 college experiments indicate that tranquilizers in general exert very little stimulation on liveweight gains and feed savings. No case was made for live rumen cultures by results from three tests; it is believed that the large mass of micro-organisms normally present in the rumen are little influenced by the addition of a few more.

The most effective tranquilizer in stimulating liveweight gains was ethyl alcohol, but this stimulation averaged only 4 percent, with feed savings averaging only 2 percent. Carcass characteristics were affected little, if any, by tranquilizer feeding; for each dollar invested in tranquilizers, there was an estimated return of $1.20.

Tapazole is currently in the experimental stage, and shows good promise as a gain stimulator when fed at high levels for comparatively short periods just prior to marketing cattle.

Enzymes in cattle supplements represent some of the newest feed additives to be tested in fattening cattle rations. The initial experiments appear promising when high corn rations are fed using corn containing 14 percent or less moisture. Liveweight gains increased an average of 7 percent, and feed efficiency improved an average of 4 percent.

THE PAYOFF OF FEED ADDITIVES FOR BEEF CATTLE

Item	Oral stilbestrol fattening rations*	Oral stilbestrol growing rations**	Antibiotics (Aureomycin) (Terramycin)	Enzyme Mixture (Agrozyme)	Tapazole 525 mgs. for 60 days	Ethyl alcohol	Tranquilizers (Tran-Q) (Triflno-meprazine) (Reserpine)	Dynafac
Number of experiments	105	58	112	12	11	6	72	30
Daily amount/animal	10 mg.	10 mg.	75 mg.	.0075 lb.	525 mg.	0.16 lb.	——	1-2 gms.
Years tested	6	6	9	1	2	2	3	3
Appetite stimulation	2%	2%	None	3%	1%	1%	1%	None
Gain stimulation	13%	12%	4%	7%	8%	4%	3%	None
Feed savings	10%	10%	3%	4%	7%	2%	1%	None
Net return/animal	$ 6.94	$5.63	$3.16	$3.05	$1.98	$1.44	$0.90	$0.46
Net return/additive dollar invested	$11.57	$9.38	$3.00	$1.50	$4.72	$0.60	$1.20	$0.61

*Ration supporting two-pound or more daily gain per animal

**Ration supporting less than two-pound daily gain per animal

CALVES RAISED WITHOUT ROUGHAGE

PENNSYLVANIA State University has just completed a preliminary study in which two male dairy calves (Guernsey and Brown Swiss) were raised on a roughage-free ration from birth to 319 days.

No final conclusions can be drawn from results with only two calves, but the results are interesting. Both calves started at a day-old weight of 102 pounds, made an average daily gain of 2.57 pounds on 3.76 pounds of feed per pound of gain. Live weight at slaughter for the Guernsey was 860 pounds; for the Brown Swiss, 930 pounds.

Except for a slightly abnormal gait (which may have been caused by limited exercise) the skeletal development, health, vigor, haircoat, appetite and sexual behavior appeared normal in both bulls. Both demonstrated cud-chewing, but to a lesser extent than cattle fed a ration including roughage. The feces more closely resembled that of swine.

The color, firmness and taste of the meat from the various muscles of these bulls appeared to be normal for the grade and age.

5 reasons why DuPuits Alfalfa returns more profit

1 **DuPuits is highest yielding** of any alfalfa you can grow when managed properly.

2 **DuPuits has exceptional seedling vigor** for strong stand establishment even under heavy competition.

3 **DuPuits matures early.** It takes a week to 10 days less than most other alfalfas to reach proper cutting stage. DuPuits should be harvested as soon as each crop is ready in order to get an extra cutting.

4 **DuPuits usually gives you an extra cutting** because of its early maturity and the fact it grows longer into the fall.

5 **DuPuits recovers quickly** after cutting or grazing. And it resists common leaf spot disease.

Farmers tell us that under intensive management and when cut at the proper stage, DuPuits yields up to 25% more alfalfa than other commonly grown alfalfas. And more yields add up to more profits. To place your order for DuPuits alfalfa, see your local seed dealer.



NORTHRUP KING

NORTHRUP KING SEEDS

Minneapolis 13, Minnesota

Quality Is The Watchword

(Continued from Page 12)

Flocks are kept through 13 months of lay, and average about 68 percent production for that period. The laying flock mortality is very low, not more than 10 percent for the entire period. Hens laying since June, 1960, were replaced in October or November, 1961; the January, 1961 pullets will be replaced about April, 1962.

The success of the replacement program involves a carefully-planned culling system. Just prior to marketing the oldest pen of layers, the two younger pens are culled. Then sufficient birds from the middleage group are banded and placed in the pen of youngest layers to bring it up to its 650-bird capacity. After that the desired number of the best layers in the oldest pen are banded and placed in the middleage pen, bringing that pen to full strength.

Thus the pens are working to capacity. No banded birds are carried through a second culling. The old hens bring eight cents per pound at a nearby soup factory. They are loaded at night—handed out of second story windows to men who place them in crates; no crates are brought into the pens.

The replacement program insures a year 'round supply of the egg sizes preferred by Green Mountain Farm's 150 regular retail customers. These eggs are marketed as jumbo, extra large, large (average 28 oz.), medium, pullet, and peewee. A comparatively small percentage of eggs is delivered once a week to eight wholesale customers, including luncheonettes, delicatessens, meat markets, and milk stores.

Egg Handling

Eggs are gathered three times daily, washed immediately in a detergent solution at 110 degrees F. In summer they're cooled and held at 58 to 60 degrees; in winter at 55 degrees. Candled the next day, they are placed in flats and boxed in cartons carrying a Green Mountain label which reads: "Ready to Cook Broilers, Fryers, Roasters, Fresh Eggs," and includes the farm name, road address, telephone number, and owner's name.

The layers are on an all-mash program, although during the winter 2 pounds of scratch grain per 100 birds is provided late in the afternoon. Mash is fed once daily in the morning. Pellets are scattered on the floor at noon to keep the layers busy in the afternoon, and to keep the litter stirred.

The well-constructed poultry house has an aluminum roof; the ceiling of the laying pens is insulated. Even on the hottest days the temperature in the pens never exceeds 85 degrees. Adequate ventilation is assured by easily opened windows and ceiling vents. The excellent ventilation reduces respiratory problems, assures dry litter, and reduces the possibility of egg contamination by undesirable odors.

John and Eva Jonker enjoy their work. And they find time for bowling, raising Chihuahua dogs, and other recreational activities. They haven't regretted their choice of poultry farming, and are confident that a premium market exists for those farmers who will consistently produce quality products.

Pen-FZ opens "second front" in the fight against mastitis

A new Pen-FZ "dry cow" approach has armed the nation's dairymen with a second weapon . . . a "second front" . . . to combat losses due to mastitis.

Cows with a history of mastitis when in production are treated with Pen-FZ *when they're dry.* This helps prevent mastitis recurrence...called "freshening flare-up."

The Pen-FZ "dry cow" program supplements normal treatment of cows in production to sharply increase your opportunity to stop mastitis losses.

Eliminating the need to withhold milk from market following treatment, the Pen-FZ "dry cow" program is welcomed by both dairymen (who hate to lose sales of this milk) and milk inspectors (who are responsible for determining when all drug residue is gone from the milk of treated cows.)

For dry cows with only average mastitis problems, you can reduce mastitis recurrence by injecting Pen-FZ in each quarter after the last milking.

To help prevent "freshening flare-up" in herds where mastitis is a chronic problem, Pen-FZ should be injected in each quarter immediately after the last milking . . . then once a week for two weeks following.

The Pen-FZ used for the "dry cow" program is the same as that used for cows in production.

Pen-FZ contains an antibiotic which — as with other antibiotic treatments—slows reproduction of mastitis organisms. In addition, Pen-FZ is the only mastitis treatment to contain nitrofurazone which kills germs by starvation.

Working together in Pen-FZ, this nitrofurazone-antibiotic combination provides effectiveness unequalled by other mastitis treatments . . . for dry cows or for cows in production.

Special "freshening flare-up" introductory offer

2 free with 10



PUT MORE HEALTH INTO LIFE BY STARVING GERMS TO DEATH

Now — you can start a "second front" against mastitis in your herd at a big savings:

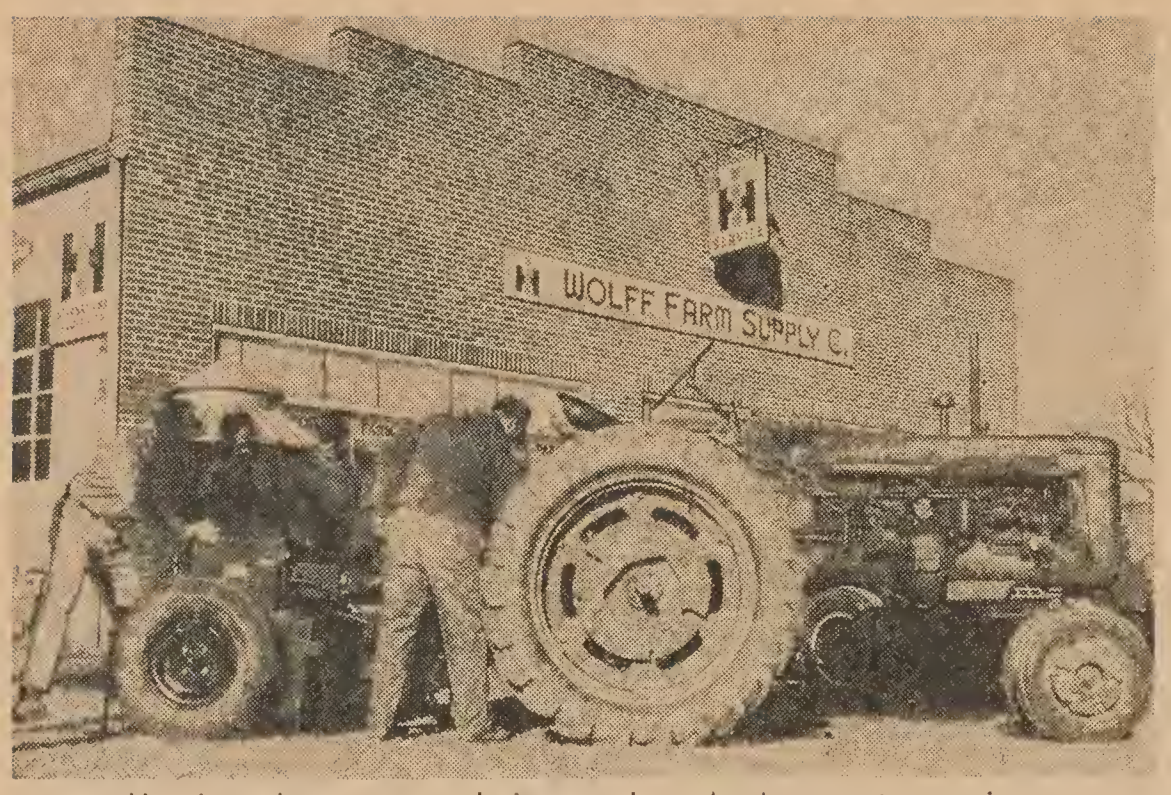
Buy 10 tubes of Pen-FZ and get 2 free.....SAVE $1.58
Buy 10 syringes of Pen-FZ and get 2 free.....SAVE $1.70

Buy now... limited offer

nitrofurans

HESS & CLARK, Ashland, Ohio
Division of Richardson Merrell Inc.

AH-33



Here's a dynamometer being used to check a tractor engine.

Before spring, get your tractor . . .

Ready To Roll

By TOM CLAGUE

ONCE you begin spring work, your tractor should run several hundred hours before giving any trouble. And your best chance of getting that kind of service comes if you give it a thorough spring check-up before the season begins. Proof that this is a good investment is found in a recent study of 50 farm tractors, where engine adjustment increased the average power output by 11 percent and decreased fuel consumption by 14 percent. This included spark plugs, timing, air cleaner, carburetor, and governor. The saving was about $35 for every 1,000 gallons of fuel burned.

You'll know best what results you are getting if you have your tractor checked with a dynamometer before and after the check-up. This way, you can actually read how much you've improved your tractor performance; but even if you don't do it this way, the check-up is good business.

A balance of three factors is needed for good engine performance —engine compression, ignition, and fuel-air mixture. You cannot accomplish much by tuning an engine with poor compression, so check that first. Poor compression may indicate bad valves, worn piston rings, or both. A compression gauge will give an accurate test. Borrow one from a serviceman—and he can also tell you what your compression should be. If you can't get a gauge, try this simple test:

With the ignition turned off—or wires removed from the spark plugs —turn the engine with a hand crank. If all cylinders seem to be about equal in compression, they are either all good or all about equally weak. Unless the engine turns over alarmingly easily, it is probably in good enough condition to warrant your tuning it.

If you do have some weak cylinders, consult your serviceman. Whether you need a valve job, new rings, or a complete motor kit with sleeves, pistons, and rings—schedule it as soon as possible.

A little attention to the ignition system will do a lot of good. Timing is very important, of course, and it should be checked with a timing light. Unless you know the plugs are pretty new, replace them; otherwise, clean them and set the gap as specified in your manual. If you buy new plugs, be sure to get those recommended for your engine. They are closely tailored to fit differe operating conditions. A dynamom eter will show you how much i provement you can get with the ne plugs.

If you have a magneto, have checked by a good "mag" man. The are scarce, but it's worth your tim to find one—you can't do much wi a magneto yourself. Check th points of your distributor ignitio system. It might be wise to insta new points and a condenser befo the season starts just to assure be possible performance and econom Be sure to set the point gap as spec fied in your manual. Have your co checked, to be on the safe side.

Electrical System

Check the rest of the electric system. Is the distributor excessiv ly dirty or greasy? Is the ca cracked? Is the gasket good? Loo at all wiring and connections; is i sulation still good, or oil soake frayed, damaged? What about co rosion on battery strap, cable, an connections? Remove any and coa with oil. Check the battery fo cracked case, proper caps, and see it has enough water. Are the co nections sound and tight? Is th mounting serviceable?

What about the generator an starter? Are cover bands in place Are brushes in good condition? An "lead" wires in good condition? I the generator mounting solid, an the belt in good shape? Is the star er cable tight?

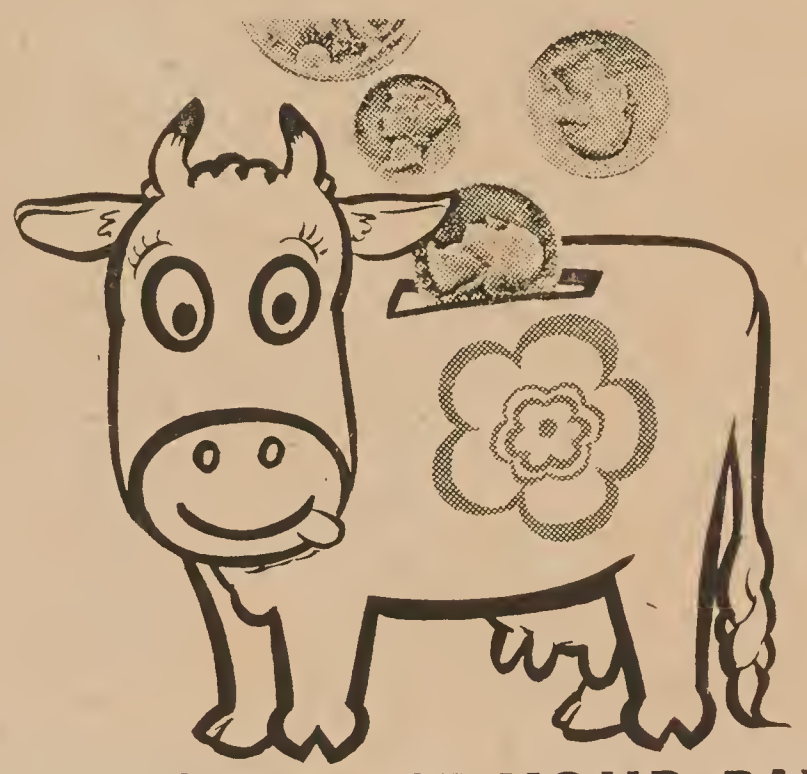
With compression, ignition, an electrical systems all right, consi er connections, cracked hoses, o anything that might allow un-filte ed air into the engine. Clean out th air filter and put in new oil. If yo feel that the cleaner may be partl plugged, put the tractor on a goo belt or dynamometer load and the remove the air cleaner. If the engin seems to "breathe" much more fre ly, you may need a new cleaner.

Check the carburetor and as your serviceman how to set it. I shafts and bushings are worn, yo won't be able to adjust it very wel In addition, unfiltered air can lea in through worn spots and defea the purpose of the air cleaner, caus ing premature wear on rings an cylinders. Worn parts can affect op eration and economy, so repair o replace as necessary. Check the gov ernor, too, to see if it maintain proper speed. If the engine is slow it won't develop its intended power

Engine "breathing" is importan so valve tappet clearance should b checked. If there is too much, th valves can't open far enough an they will tend to interfere wit "breathing." If there is too little they can't close properly, and wi burn — causing expensive repai work. Set clearance as recommend ed in the manual.

Check engine oil pressure after i is well warmed up—at least 30 min utes of medium-load operation. If i isn't normal consult your service man; you may have crankshaft bear ing trouble. When the weather i safe, drain the anti-freeze, flush, an refill with clean water. Add rust in hibitor and install a summer therm ostat.

Go over the rest of your tractor Adjust brakes, evening side-by-sid pedals for safe road work. Se clutch pedal free-travel. Pack fron wheel bearings if necessary, or ad just. Check tire inflation. Check o level of hydraulic system, and se that it functions properly.



SHE'LL RAISE YOUR PAY with *EARLY CUT HAY!*

Study after study proves this fact:

Early cut, high quality hay put in the barn with minimum leaf loss can increase milk profits per cow as high as $40 to $60 per year!

That's why an electric hay dryer is the most profitable investment any dairy farmer can make! With an electric hay dryer you can cut your hay at its peak in early June — with no weather worries. You can reduce grain costs per pound of milk produced — often pay for your hay dryer in feed savings and increased milk production the very first year!

Get the facts from our Farm Service Representative— learn how easily you can "raise your pay with early cut hay" . . .

PLAN YOUR ELECTRIC HAY DRYING SYSTEM NOW!



NEW YORK STATE ELECTRIC & GAS CORPORATION



SIGN OF BETTER FARMING...



New Material Approved For Itching Hens

By JOHN G. MATTHYSSE*

THE NEW systemic insecticide **Co-Ral** has been approved for use on poultry. In this case it is **not** a systemic insecticide, as dosage levels used are too low to produce an insect-toxic level in the birds' blood.

Co-Ral is very effective against poultry lice, all kinds of mites, and ticks. A 5% **Co-Ral** dust may be used at 2 ounces per 30 square feet of litter of floor area, or a 0.5% dust may be used at 1 pound per 20 square feet of litter of floor area. Be sure to read the label and know the concentration of the dust you buy!

Simple Method

Dust application to litter is a very simple method of poultry lice and mite control for conventional houses. The low concentration (0.5%) dust can be scattered by means of a grain scoop. A hand or rotary duster may also be used.

For caged birds, place dust bath boxes in the cages charged with 4 ounces of 5% **Co-Ral** dust mixed with 2¼ pounds of fine sand, dust or talc. One box is sufficient for 50 birds in slatted floor or conventional houses. Direct dusting of individual birds may also be done with 0.5% dust; do not use a higher percent dust directly on birds.

The 25% **Co-Ral** wettable powder may also be used in dust bath boxes at 1 ounce mixed with sand, dust or talc. For spray application, use 3 ounces of 25% **Co-Ral** wettable powder in 5 gallons of water for Northern fowl mite, or 7½ ounces in 5 gallons of water for lice. Apply approximately 1 gallon to each 100 to 125 birds. This spray application is probably the best way to use **Co-Ral** on caged birds.

Use a knapsack or compressed air sprayer or small power sprayer. Hold the nozzle under, over, and on each side of the cage from the outside to spray the birds. Test your sprayer first to find the delivery rate (how long it takes to fill a gallon jar). Calculate how much time to spend on each cage so that 1 gallon will be sprayed on 100 to 125 birds. For example, if your sprayer takes 2 minutes to spray 1 gallon, and you have 15 birds per cage, you will want 2 minutes spray time on 7 to 8 cages (105 to 120 birds). This is 15 to 17 seconds per cage. Remember that output rate of a sprayer depends on pressure.

Be careful particularly not to overdose, and not to produce toxicity or residues by contaminating the feed or water. Cover or remove all feed, water, feeding and watering devices. Provide thorough ventilation while spraying or dusting. Do not treat birds within 10 days of vaccination, or other stress influence; do not repeat in less than 10 days. Read the label carefully, and observe all precautions given for any insecticide use.

Co-Ral has received a tolerance of 1 part per million in meat, but none in eggs. No time interval between treatment and sale for slaughter is necessary to meet this tolerance. No egg residues will result if label directions are followed carefully.

*Entomology Dept., Cornell University.

USING RANDOM SAMPLE RESULTS

PROFESSOR Dean R. Marble, who has been in charge of the random sample tests at Cornell University for several years, offers this seven-point guide for poultrymen using the tests:

1. Look at more than one test. A breeder may be in the top quarter in one test, but on the bottom in 10 others.

2. Check tests for more than one year. A good four to five year average is best.

3. Find out where the test was held — a breeding combination that does well in California may not be as good in a cold climate.

4. Make sure the breeding combination does well on egg production, liveability, and feed efficiency in particular.

5. Consider traits important in your operation. A particular strain of birds may lay a lot of extra-large eggs, but if you don't get a premium price for them, it won't mean extra profits.

6. Random sample tests are a comparison, not a prediction. A common environment permits comparison because all entries are grown intermingled. They do not permit a prediction when environment may be entirely different.

7. Look at how each test has been run. If the birds were raised in cages, they may act differently on a poultry farm where cages aren't used.

An annual report listing results in all U. S. random sample tests is published by the Council of American Official Poultry Tests. Dr. M. R. McClung, Poultry Science Department, University of Rhode Island, Kingston, is secretary of the Council.

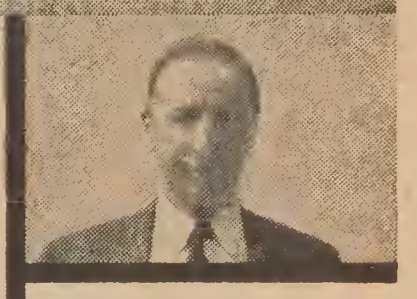


Seth Merwin's 290-acre operation with nearly 100 head of milkers and young stock wouldn't be quite the same without the help of his Pleasant Valley Co-Op Farm Credit Office.

"My new silo, the milking parlor, remodeling the milking house and the tenant house — all of these things would be missing," says Seth Merwin, "not to mention the farm machinery and equipment, feed and fertilizer Co-Op loans have helped me with over the years."

Like so many progressive farmers, Seth Merwin uses credit as a *farm business tool*. "To run a farm like a business, you've got to be business-like about credit," he says. Financing has helped him get ahead — and stay ahead — in today's competitive market.

How about your future plans? If they call for expansion or modernization, call your local Co-Op Farm Credit man. His wide experience in loaning to farmers is valuable.



Seth Merwin's local Co-Op Farm Credit man is W. Frank Mooney, Manager of the Federal Land Bank Association and Farmers PCA of Pleasant Valley. The credit know-how and farm experience of men like him is available for help with your long-range projects or short-term needs. Call your local office today.

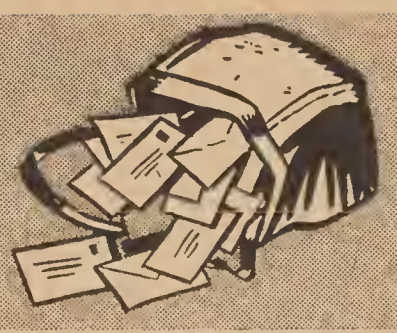
FOR COMPLETE, FRIENDLY CREDIT SERVICE, SEE YOUR LOCAL ASSOCIATION, OR WRITE: DEPARTMENT A-142, 310 STATE STREET, SPRINGFIELD, MASSACHUSETTS

FARM COOPERATIVE CREDIT

FEDERAL LAND BANK AND PRODUCTION CREDIT LOANS

through local farmer-owned associations

Readers Tell Us!



REAL PROBLEM

HUGH COSLINE's recent comments on supply management cover a wide scope of farm policy and philosophy. All of his suggestions and the ones he reports from farmers, pro and con, are vital considerations. We must at long last in one way or another face up to supply control.

This is the thing that professional agriculture and big agriculture have long wanted to dodge. I do not really like it either, but for several years now I have known that it must be faced. All the yak yak we have so long heard about the farmer going back alone to the free market place is so much wind wasted. I would dare to suggest that farmers would be glad to go back to free markets if all the rest of the economy would go with them. The rest of the economy will not do it short of a dire depression.

Moreover, we cannot talk about the unbalanced farm economy very much longer without a continued decline in farm assets and values. In spite of the glowing paper assets some economists have printed in recent years, I am convinced that the farm debt has risen by over three and one-half billion dollars since 1959, and farm liquid assets have declined over a billion dollars in the same time.

Farmers cannot live on increased urban land values, because increased taxes are biting too hard on reduced farm income. To me a liquid asset is produce I can sell from my own farm, and not selling my own farm, home and family down the river.

I do not accept the "inexorable" economic laws that the farm economy has had to live with in recent years. The powerful labor leaders have set the prices we have had to pay for our supplies and equipment, and the large chain buyers have largely set the prices of our produce in the markets. If this is not true, why are farmers and all their pundits searching heaven and earth to set up bargaining organizations to protect farmers?

We are going overboard in our country on a consumer agent philosophy. We are all consumers and like to buy as cheaply as possible. In agriculture this is fast leading to an integration trend where eventually family farms will become so poor that outside finance will come in to control our farms and cooperatives. This has already happened among poultrymen. Therefore, I am not a prophet of gloom — it is already here. — *F. W. Beneway, Ontario, N. Y.*

SUPPLY MANAGEMENT

The government method of giving agriculture a moderate degree of prosperity by supports and controls is disturbing to the thinking of those of us who are of the old school. We were taught and grounded in the principle of the competitive free enterprise system.

However, our modern highly efficient and productive agriculture is faced with new problems, which may require new methods of solution.

Because it is imperative that production be brought into closer balance with consumption and the market demand, the farmers should be willing to trade high supports for controls. However, I mean the high supports that the candidates promised in the last presidential campaign—95% to 100% of parity.

I am convinced that if the present trend of increased production continues, the time will come when we will have production control either by economic pressure or by a planned supply management program. Such a plan should be written by the producers and enforced by the government. This may not be the time to try to put such a plan into effect. I doubt if many farmers would vote for it now.

The producer knows no other way and has no other way to meet his ever-increasing cost but to produce more, which in turn reduces the price. This is a vicious chain of circumstances which should be corrected. However, any program should be produced or controlled and put into effect only by a majority vote of the producers—and be removed by the same method. — *Ward D. Phelps, Covington, Pa.*

MILK PLAN

We hear a lot about milk control lately, which is based mainly on milk production. In my opinion such a plan should be based on the following points:

Milk control should not be based on milk production alone, but on four aspects of dairy farming. This would include (1) buildings (2) milk production (3) number of acres or cropland (4) number of cows. This would mean that the average farm determined in each area would get five points for each category. The total number of points average per farm would give the milk allowance for each farmer. A price fixing committee should make it possible that the average farmer would get $1.25 per hour besides the cost and investment.

—*Kurt Ziefle, Middlefield, N. Y.*

DRINKING AGE

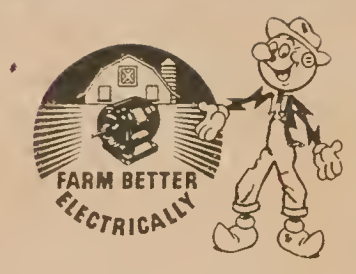
Your "Stomach Protection" editorial on the minimum drinking age is a good beginning, a toe in the door, so to speak. For years I've been hoping that someone with your prestige would at least mention this awful state of affairs — New York State the laughing stock of the liquor traffic. All other states around us prohibit the 18-year-olds; we permit. Is our Legislature so corrupt as to be unable to get this simple bill through? "Big booze" money, as I understand it, is what kept it in committee last year. A few articles like this, even more pointed ones, should help to awaken your readers to compel action this year by the Legislature. Keep them coming!

To my mind the biggest threat to the life of this nation is not Communism, nor Russia, but booze, because the public is thoroughly awake to the threats from without. But the thing that saps out the very life of our people is beer and liquor, and the licentious attitude toward it, to be seen everywhere. The toll of life is appalling; the toll on character far more so. — *Cuyler Paine, Albion, N. Y.*

A new motion picture, "Growing Alfalfa Successfully," has just been released. It deals with most phases of alfalfa production, and runs for 25 minutes. Also available for showing at farm meetings are two shorts, "Alfalfa, Queen of the Forages," and "Good Alfalfa Requires Good Fertility," condensed from the main movie, each of which takes 10 minutes to show. Bookings may be made through the American Potash Institute, 1102 16th Street, N. W., Washington 6, D. C. There is no charge.

FARM BETTER ELECTRICALLY





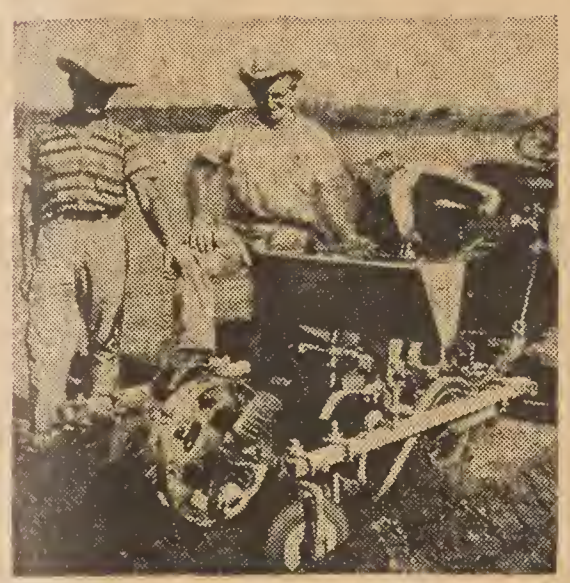
Government studies leave no question about the increased nutritive value that can be retained by the early cutting and barn curing of hay. Hay losses due to bad weather are cut to a minimum, for mow curing lessens time hay must lay in the field after cutting. Mow cured hay is more palatable to livestock than the field cured variety. Livestock will eat more of it, hence reducing the need for as much supplemental high-protein feed. Properly mow cured hay can increase milk production per acre by as much as 13% and electricity can help do the job quickly and dependably. Our Farm Representatives can help you plan an installation just right for your farm. Give him a call today!

WANT AN AUTOMATIC YARD LIGHT FREE? *If your farm is up to date, electrically, you may already qualify. Contact your Niagara Mohawk Farm Representative for full details.*

NIAGARA MOHAWK

INVESTOR OWNED–TAXPAYING

Here's Something New!



Here's a versatile machine.

Does It All — A machine developed at Texas A & M College, College Station, Texas, prepares a seedbed, plants the seeds, fertilizes the ground, lays a 40-inch wide plastic mulch, and punches holes in it for plants to grow through. What more could you ask? The researchers are going to ask it to plant seedlings directly through the plastic film, and to operate a bit more smoothly on uneven and root-infested land.

Many farmers have experienced the advantages of polyethylene plastic mulch in reducing weeds, and holding crop moisture, and in the College tests it was found that the black plastic remains effective for two to three years.

Not Really Sour — Folks who find conventional sour cream too acid will find something to interest them in a new product developed by Professor Frank V. Kosikowski of the N. Y. S. College of Agriculture at Cornell University. This cream is milder, which makes it more suitable for use on fruit and in certain other recipes. It has remained fresh for six weeks under refrigeration, and it can be produced in a variety of fruit flavors. It can be held in the grocer's refrigerated case for several months without flavor change.

Hot Foot! —Of the right kind. Professor C. N. Turner of the New York State College of Agriculture has earned the thanks of dairymen for designing a successful heating system for milking parlors. Hot water is circulated through black steel pipes installed along the sides of the pit, and dairymen who have tried the device report waist-to-feet comfort for the first time.

All electrical parts are assembled in a packaged unit which can be installed outside the moist pit area, thus reducing the danger of shock and extending the life expectancy of the system.



Black pipes at left heat pit.

Exit Wheel Plow? — An Aeroplow, invented by Dr. William R. Bertelsen, Neponset, Illinois, uses air to lubricate the passage of the ground over the plow. An air compressor run by the tractor power take-off pumps air to the plenum box behind the moldboard, allowing a direct pressurization in the furrow slice to keep it off the plow itself after it leaves the point of the share.

"Friction is a very significant waste of power in plowing, and it is worse in sticky soil," says the Neponset physician inventor. "It is safe to say," he continues, "that the power required to pump the air will be only a fraction of that now wasted in heat of friction."

Dr. Bertelsen says the Aeroplow makes it possible to scour under all conditions. The lower draft force, he said, will allow more bottoms to be pulled by the same tractor, or the same number of bottoms to be pulled by a smaller tractor.

Antiresistant DDT — Wisconsin Alumni Research Foundation, Madison, Wisconsin, on January 24 announced a new DDT formula to which houseflies and other DDT-resistant insects are susceptible. More particulars will be available later.



It's in the bag!

Fabric Tanks — Created from finely woven nylon fabric impregnated with a specially compounded rubber, portable fabric tanks have been produced by the Goodyear Tire & Rubber Company, Akron 16, Ohio, since 1949! Now they have come out with "utility tanks", ranging in capacity from 60 to 350 gallons, in eight sizes. A 350 gallon tank weighs 50 pounds when empty; the smallest size only 20 pounds. They are useful for storage and movement of gasoline on farms and in transportation of liquid fertilizers and weed sprays, and, as the picture indicates, are easily transported.

New Light — Dr. Peter Langer, of the Veterinary Virus Research Institute at Cornell University, suspects that milk from cows infected with mastitis may be source of infection of baby calves. He is planning further research.

No Stings? — USDA scientists have developed a new method of keeping bees under control while the honey is collected. They take a pad soaked in a chemical called propionic anhydride and place it in a special fume chamber. This is fitted over a sec-

(Continued on Page 36)

"We got our tilt-up concrete dairy building for only $1.17 per square foot!"

Says IVO GOETTEMOELLER, *St. Henry, Ohio*



"Concrete, in my opinion, is better than any other construction material for the farm—it's durable and needs practically no upkeep. Yet by building my loose housing dairy barn with the tilt-up system, concrete actually lowered my original cost. Only $1.17 per square foot—and that included the labor. No other material I know of could give me a sturdy, fire-resistant building at such low cost."

With tilt-up concrete, walls start out like floors—formed and cast right on the ground. A simple rig and a farm tractor tilt them into place in minutes. Solid concrete walls give real protection to animals and machinery. No worries about fire, rodents or weather—no problems with rust, rot, painting or other costly upkeep. Write for informative free booklet.

CLIP—MAIL TODAY

PORTLAND CEMENT ASSOCIATION
1500 Walnut Street, Philadelphia 2, Pa.
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A national organization to improve and extend the uses of concrete

Send free booklet on tilt-up concrete.
Also send other material I've listed:

NAME_____

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DIBBLE'S — The BEST in FARM SEEDS— since 1891

HAY and PASTURE MIXTURES
Latest recommended varieties of ALFALFA SEED
CLOVER, TIMOTHY, BROME GRASS, BIRDSFOOT TREFOIL
Latest price list describes complete line of best quality tested farm seeds at reasonable prices.—Write for your free copy!
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Now you can get FREE HOT WATER from your bulk milk cooler by installing Thriftchanger for details, write.
Sturges Heat Recovery, Inc.
Stone Ridge, New York
FARM BETTER ELECTRICALLY

NO HORNS!
One application of Dr. Naylor's Dehorning Paste on horn button of calves, kids, lambs—and *no horns will grow*. No cutting, no bleeding. 4 oz. jar—$1.00 at your dealer's, or mailed postpaid.
H. W. NAYLOR CO.
Morris 12, N.Y.
Dr. Naylor's DEHORNING PASTE

SOMETHING NEW

(Continued from Page 35)

tion of the hive called the super. Then air is forced into the fume chamber with a bellows. The bees move into other supers or into the brood chamber below, become gentle and easy to work with, finally moving outdoors in shade as well as sun.

The honey flavor is not changed, and when combs were left on the hive, after removal of the fume chamber the bees returned to cover them within minutes. More information can be obtained from the Publications Office, Morrill Hall, University of Vermont, Burlington, Vermont, or from the State Department of Agriculture at Montpelier, Vermont.

Ground Crew — Researchers at the University of Wisconsin Agricultural Experiment Station are intrigued by the possibility of control of plum curculio and apple maggot with the use of chemicals applied to the soil. In the process of studying mouse control by using endrin, they discovered that this material was also "doing in" the insects mentioned, because both pupate in the ground. These and other researchers are investigating the idea more thoroughly.

Solatrol — A new device that senses available light, and automatically regulates mist systems to give the exact amount of water required by plants during initial growth and root formation. Weighing only three pounds, and measuring 6½"x5"x4", Solatrol operates on standard AC power, and is applicable to horticulture, plant pathology, forestry, and departments engaged in plant propagation experiments and production programs. It is marketed by General Scientific Equipment Co., Inc., 3030 Dixwell Avenue, Hamden, Conn.



Russell oats being grown for seed.

New Oat—Bill Stempfle of the Stanford Seed Company, Buffalo, N. Y. recently called to our attention a new seed oat, Russell, bred four years ago by the Canadian Department of Agriculture.

Russell has quite stiff straw, is very similar in many characteristics to Garry but higher yielding than either Garry or Oneida; also heavier in weight than either. There is a low hull percentage, and it matures about a day later than Garry.

Field trials have been going on in Pennsylvania, New England and New York, and farmers and county agents who are familiar with the strain like it, particularly the short, stiff straw which stands up better against bad weather.

In 13 locations throughout Pennsylvania Russell was seeded at the rate of 2 bushels per acre, combine harvested at 14% moisture. The yields per acre were as follows: Russell, 80; Oneida, 71; Garry, 70; Clintland 60, 64; Clintland, 63; Clinton, 61.

The principal difference between Garry and Russell appears to be straw height, and a little more resistance on the side of Russell to Septoria leaf blotch and black stem. A limited supply of seed will be available for 1962.

Does Two Jobs — A new instrument has been produced that will at the same time test milk for butterfat content and percentage of non-fat solids. It works on the principle of sound waves and is reported as extremely accurate. It will be some time before it will be produced for commercial use, but when it is, the cost is expected to be under that of present types of equipment, and readings will be more accurate and faster.

The instrument has been demonstrated by scientists at the University of Wisconsin at Madison.

Marketing Style — For poultry, that is, is a new lightweight poultry container made of aluminum. Weighing less than 11 pounds, the crates will not absorb moisture and have better ventilation. Refuse is easily cleaned from the crate bottoms, and the crate may be steam cleaned or tank dipped for thorough sanitizing. Further information may be obtained from Aluma Corporation, Box 421, Columbus, Indiana.

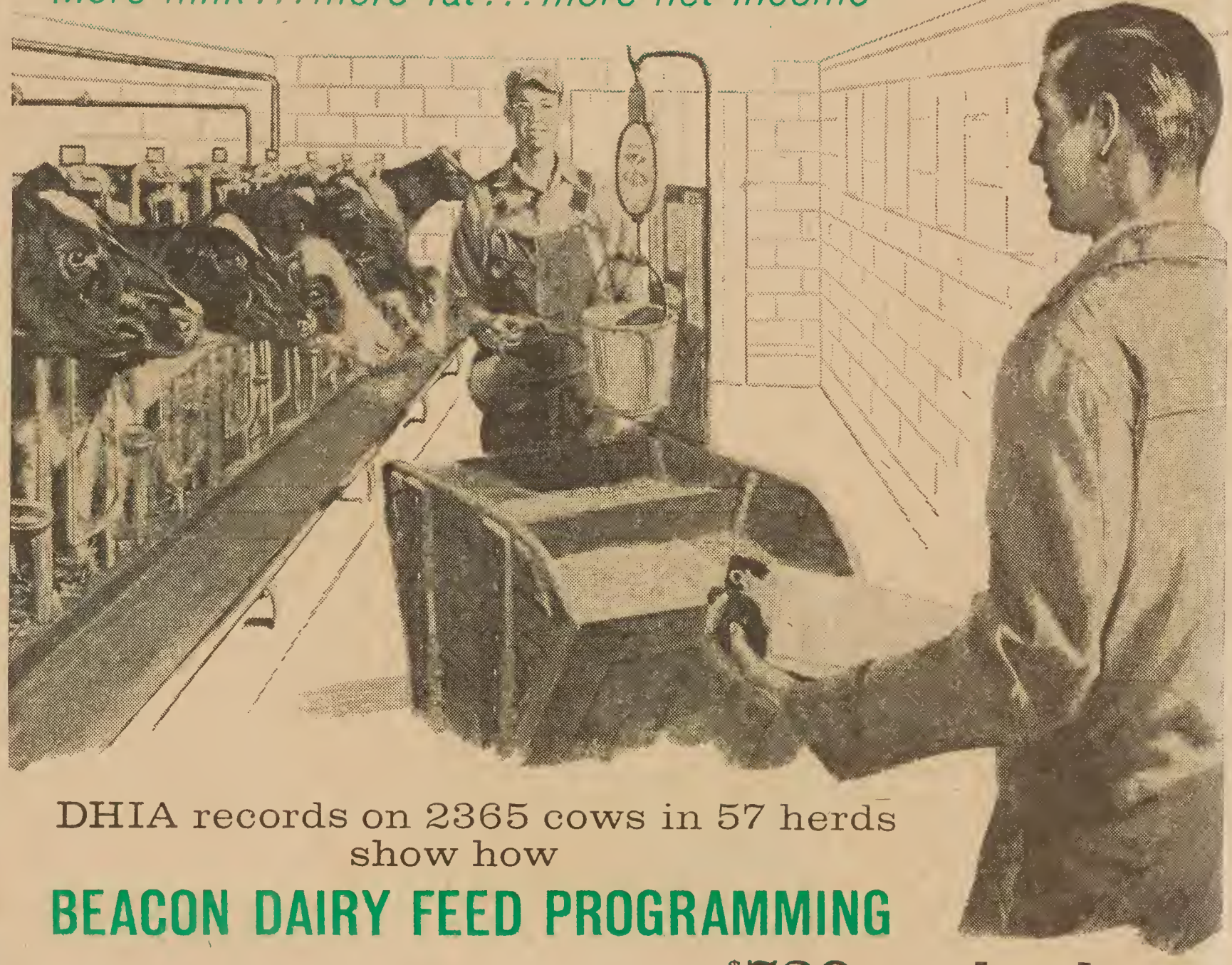
Mystery — Why is it that neither man nor beast can eat soybeans raw and survive? That is a question that has been puzzling scientists for a long time.

A poultry research team at Washington State University brings forward the suggestion that an amino acid imbalance may be the inhibiting factor. If so, the addition of the missing amino acid or acids to raw soybeans or raw meal could make this legume a food and feed staple without having to cook it.

Solar Poultry House — Research workers at the New Jersey Agricul-

(Continued on Opposite Page)

More milk . . . more fat . . . more net income



DHIA records on 2365 cows in 57 herds show how

BEACON DAIRY FEED PROGRAMMING

increases income over feed cost **$730 per herd**

Looking for ways to get extra profits from your herd? Then check these records! Here is *proof* from new official DHIA records that herds switched to BEACON DAIRY FEED PROGRAMMING increased production – fat – and income. These complete records are not just for one herd . . . or two . . . but for *57 herds* representing a grand total of *2365 cows.*

In the very first year after switching to Beacon Dairy Feed Programming, cows in these herds averaged 759 lbs. *more* milk – 37 lbs. *more* butterfat – $17.81 *more* income over feed cost. Multiply $17.81 per cow by the 41 cows in the typical herd and that's more than *$730 extra cash* per herd.

Convincing proof that Beacon pays off? Sure is, but here's more. Some of the herds had been on Beacon Dairy Feed Programming more than one year – some as long as four consecutive years, ever since Beacon first introduced Programming in 1957. You'll see in the table that *the longer on Beacon – the more extra income per cow* (as much as $39.08 more in the fourth year compared with records for the same cows before they went on Beacon).

Why is Beacon Dairy Feed Programming so successful? Why does it help cows increase performance year after year? Because this is a step-by-step program of *precision feeding* which brings out fully *each cow's* inherited capacity for milk and profit.

Call in your Beacon Advisor

1) He sends samples of your roughage to the Beacon Laboratory for analysis. *Laboratory roughage analysis is the cornerstone of the Beacon Program.* 2) Once the nutrients supplied each cow are known *precisely*, the highly trained Beacon Advisor selects the *most economical* protein-level of grain you can use. 3) He then helps you program grain for *each cow.* 4) Together, you bring each individual cow to new high levels of milk production and income. Proof? The DHIA records show $730 more income per herd right off – the first year. Worth looking into, isn't it? Call in your Beacon Advisor today.

PROGRAMMED HERDS INCREASED PERFORMANCE EACH YEAR

	One Year on Beacon	Two Consecutive Years on Beacon	Three Consecutive Years on Beacon	Four Consecutive Years on Beacon
MILK per cow	759 lbs. more	976 lbs. more	1251 lbs. more	1718 lbs. more
FAT per cow	37 lbs. more	39 lbs. more	63 lbs. more	81 lbs. more
INCOME over feed cost per cow	$17.81 more	$28.30 more	$32.03 more	$39.08 more
	(2365 cows in 57 herds)	(1350 cows in 33 herds)	(584 cows in 13 herds)	(285 cows in 5 herds)

From the Virginias to Maine

BEACON FEEDS

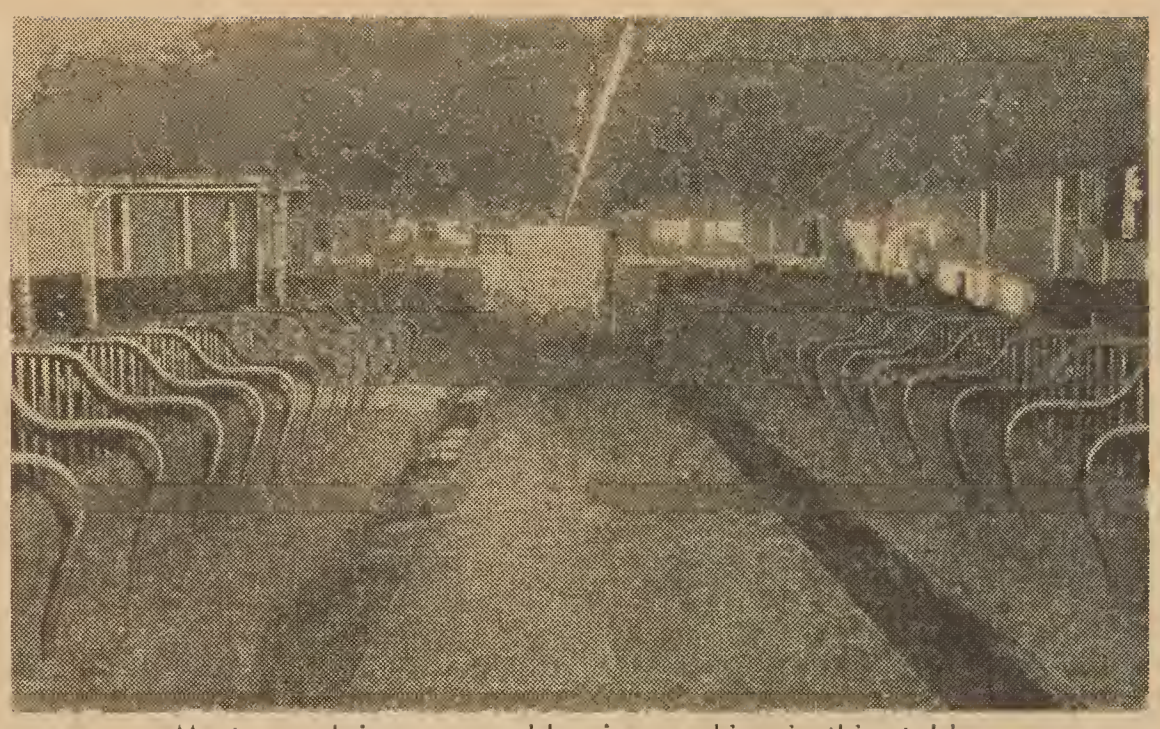
LEADERSHIP BY RESEARCH

BEACON Division of textron · Cayuga, N. Y.

(Continued from Opposite Page)

tural Experiment Station have been developing a low-cost solar poultry house since 1956 and feel that they have something worth while. The front of the house is tilted 67 degrees from the horizontal, adding to the usable floor area, and admits from 10 to 20 percent more sunlight. Also, it permits the snow to slide off.

The house appears ideal for the eastern coastal area where, except for Florida, there is the greatest amount of winter sunshine in the United States, and where severe winter blizzards are unusual. Further information can be obtained from county agents or from the Department of Agricultural Engineering, Rutgers University, New Brunswick, N. J.



Most any dairyman would enjoy working in this stable.

New Barn Notes



Albert Ehman (Fred Buisch's son-in-law) passes the parlor collection plate.

Fred Buisch and Sons of Lyons, New York, are using this winter a new barn built in the summer of 1961. It is 164 feet long and 38 feet wide, has 60 tie stalls and an attached ten-stall herringbone milking parlor.

Masonite hardboard panels were prefabricated on 2 x 4 inch studs to form inside and outside walls with 4 inch fiberglass insulation "sandwiched" in between. Truss rafters eliminate posts inside the building.

Mangers are flat; Fred says they are easy to keep clean and that they have presented no problem in feeding. Platforms are 64 inches long for the big Holsteins in the Buisch herd. Fred comments, "I prefer tie stalls to the stanchions in the old barn; stalls give cows more freedom and are far more comfortable." One row of neon lights over the center of the stable driveway provides adequate light both behind and in front of the cows.

Overhead doors on one side and both ends provide convenient entrance to the stable. A concrete tunnel connects the new barn with the old one a few yards away; silage and hay are brought through the tunnel from silos and mows at the old barn. This setup allows the use of an existing investment in buildings along with a more efficient stabling and milking arrangement.

Asked why he decided to build this type of setup, Fred replied, "We believed that a pen stable would require considerably more straw and we still think pen stables are pretty cold places in which to work. We decided against an around-the-barn pipeline because a parlor lets the man milking stand up as he milks — getting up and down when milking 60 cows in stalls is a real job. The parlor may have been somewhat more expensive to put in, but we're pleased with it."

Agricultural engineering specialists at Cornell University teamed up with the contractor and the owners to decide on plans. The latter visited several other farms before making up their minds about exactly what they wanted. The entire job was done by a contractor because, as Fred puts it, "We just didn't have time to build a barn and, besides, a good contractor can do a better job than we could."

STORING DIESEL FUEL

RECENT YEARS have brought many diesel tractors to northeastern farms. Fuel for the diesel engine needs special care in handling and storage. Keeping the tank filled as often as practical reduces air moisture condensation; water is one of the most important contaminants. It invites tank rust, corrosion of the highly polished surfaces of the injector mechanism, and causes freezing of the filter screens.

Water and grit particles settle out of this type of fuel very slowly; a slight shaking or disturbance caused by filling brings such settlings back into suspension. Because of this, one should wait 24 hours after a tank has been filled before drawing fuel from it.

Steel tanks and piping are preferred since diesel fuel reacts with galvanized iron to form a powder which clogs fuel filters. Gravity tanks should be emptied twice a year, spring and fall, flushed with diesel fuel and refilled. Buried tanks are best tilted somewhat with a clean-out pump set at the lower level to periodically remove water and settlings and with the fuel pipe set at least 4 inches above the high side of the tank bottom. — *Wabun C. Krueger*

Identical twins prove it...

Beacon Program GETS HEIFERS INTO PRODUCTION FASTER



PROFIT LOSS

This photo shows "Profit" and "Loss," identical twins on trial at the Beacon Dairy Research Farm. They're part of Life-Span performance research initiated in November, 1959. "Profit" is being reared on the Beacon Program, while her twin sister "Loss" is receiving "average" rations.

"Profit" has grown more rapidly, has greater skeletal development, reached breeding size sooner, and is in milk production 4½ months earlier. Here are the figures:

	"PROFIT"	"LOSS"
Birth weight, lbs.	79	78
Reached breeding size, mos.	16	20
24-month weight	1,125	968
Milk produced to 27 mos., lbs.	2,009	0

This is proof that with the BEACON PROGRAM your investment in replacements pays off *sooner* because heifers become milkers *earlier*.

Ask your Beacon Advisor about this Program. He will help you grow fully-developed heifers on *limited* milk, *moderate* levels of grain, and on *maximum* amounts of home-grown hay — for earlier, more profitable milk income. Call in your Beacon Advisor today.

From the Virginias to Maine
BEACON FEEDS
LEADERSHIP BY RESEARCH
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MERCK

CATTLE HEALTH BULLETIN

CALF SCOURS IN YOUR HERD? THIS KILLER CAN BE LICKED!

This acute, highly infectious and deadly disease of young calves is characterized by profuse, watery, light-colored bowel movements. Several bacteria, including *Escherichia coli,* organisms of the *Salmonella* group, and a virus *(Myagawanella bovis)* have been incriminated as possible causes of infection.

Some outbreaks of scours occur (in the presence of one or more of these infective agents) as a result of the lowering of the calf's resistance. This may be due to one or more factors, such as improper disinfection of the umbilical cord at birth, failure to supply an adequate feeding of colostrum or first milk, poor diets or faulty feeding habits, deficiency of vitamins A and D in the dam's diet, sudden changes in the weather, and undue exposure to cold, drafts or unsanitary quarters.

Affected calves, weakened by the persistent scouring and dehydration, are particularly susceptible to fatal outbreaks of pneumonia. Recovered animals are sometimes unthrifty in appearance and are slow in making normal weight gains.

TREATMENT WITH SULFASTREP HELPS CUT LOSSES

The TREATMENT of scours can be effectively carried out with SULFASTREP® *Boluses. These boluses contain three hard-hitting drugs with a wide range of antibacterial activity. Two of these drugs . . .* SULFATHALIDINE® *and streptomycin . . . go to work in the gut itself where they are most needed. The third drug, sulfamethazine, gets into the bloodstream to help check infections that "spill over" into the circulatory system.* SULFASTREP *also contains kaolin to adsorb bacterial toxins and provide a protective coating for the intestinal tract to help shorten recovery time.*

DON'T LET SCOURS GET STARTED

Sanitation, warmth and proper feeding are key factors in *preventing* outbreaks. Disinfect the navel with tincture of iodine at time of birth. Make sure the calf has an adequate supply of colostrum for at least 24 hours after birth. Try to avoid overfeeding or exposure to cold, drafts and sudden temperature changes.

Give 1-2 SULFASTREP Boluses *to calves daily for 3 to 5 days after birth. Extra Vitamin A and D Mixture, a Merck product, may be fed to cows during the last three months of gestation.*

NOTE: For best results with SULFASTREP *and other Merck Animal Health Products, consult a veterinarian for diagnosis and advice before administering.*

Merck Chemical Division, Merck & Co., Inc., Rahway, New Jersey.



Officers and executive committee of the New York Holstein-Friesian Association for 1962 are, left to right: Franklin Kelder, Accord; Joseph Fisher, Canastota; Clifton Miller, Ancramdale; Kenneth Patchen, 2nd vice president, Locke; A. Dale Button, fieldman, Ithaca; William J. Baldwin, secretary, Ithaca; Donald V. Crowell, vice president, South Dayton; Nicholas H. Kolk, president, Goshen. Not present when picture was taken were Adrian T. Personius, treasurer, Ithaca; and Hugh Sutherland, Delhi.

News and Views From New York and Penn.

NEW GRANGE MASTER—Russell S. Curtis, Madison County dairy farmer, was installed as Master of the New York State Grange at a special meeting in Syracuse on February 1. Clarence Johncox of Corfu, who was elected to the position last October, has resigned because of ill health.



Russell S. Curtis

The new Master has been a Granger since 1924, has served in many offices and as overseer since 1957. He operates a 350 acre farm near Cazenovia with about 45 head of Holstein milkers. He and Mrs. Curtis have seven children.

PROGRESS DAYS — That's an old friend under a new label—Farm and Home Week at Cornell, March 20-22.

Henry A. Wallace, former vice president of the United States, will talk on the first day, which will be devoted to agriculture's international dimensions.

March 22 will be devoted to "agriculture's magic milestones," trends in agriculture during the last 100 years— and implications for the future. At 10 a. m. in Alice Statler Auditorium an address will be given by Lloyd H. Elliott, president of the University of Maine, former professor of education and executive assistant to the president of Cornell. Later that day William I. Myers, former dean of the College of Agriculture, will speak on the College's role in the Land Grant movement.

ROAD PROBLEM—Posting of roads is creating hardships for milk deliveries and fuel oil deliveries, according to the N. Y. S. Highway Users Conference. Each spring roads in many areas are restricted as to the weight of vehicles for an unstated period of time. The Conference hopes to bring it again to the attention of the current session of the N. Y. S. Legislature.

RE-ELECTED — Harold Stanley, Skaneateles, was re-elected president of the American Dairy Association and Dairy Council of New York at its annual meeting January 26. Other officers are: vice president, Fred Snyder, Churchville, N. Y.; secretary, William Allen, Van Hornesville, N. Y.; treasurer, Preston Erway, Genesee, Pa.

CLIMATE SPECIALIST — Dr. A. Boyd Pack has been appointed State Climatologist at the New York State College of Agriculture at Cornell University. Dr. Pack's job will be to tell people throughout the State how New York's hard-to-predict weather will affect agriculture, business, and recreation. It will not include weather prediction.

HOLSTEIN BREEDERS — At the 42nd annual meeting of the New York State Holstein-Friesian Association in Binghamton January 29 to 30, Progressive Breeders' Awards presented by National Director F. Murray Wigsten went to the following: Nicholas H. Kolk, Goshen; Huntting C. Winans, Pine Plains; Avery Stafford (for Walter L. Stafford & Sons) Peru; Russell Hill (for Mocony Farms) Spencerport; Donald V. Crowell, South Dayton; Howard D. McIntyre, Perry; Kenneth A. Patchen, Locke; Edward Jones, manager, Trunlan Farms, Millerton; Leland W. Irish, Valatie; and C. Eugene Lathrop, Sherburne.

CONVENTION — Pennsylvania was host to the 16th National Association of Soil Conservation Districts' convention in Philadelphia, starting February 4. Eleven agricultural queens helped to host the 2,000 guests, who represented more than 2 million farmers and ranchers from all over the United States.

POTATO PATTER — Pennsylvania potato growers, dealers and retailers cooperated in a national "February Potato Month," designed to move the currently large stock from farm storages to kitchen tables.

Among the attractions was a circular of recipes entitled "Potato Patter for Menus that Matter."

OPEN LETTER FROM STRAT McCARGO

(Chairman GLF 100-20 Corn Club)



TO DAIRYMEN INTERESTED IN GROWING MORE TDN FOR THEIR COWS:

"Atrazine can put you in the 100 bu.-20 tons/acre corn-growing class.

"Let's look at the record for 1961. About three thousand GLF farmers sprayed with Atrazine last year—

"Did it work? Thirteen of the top 18 winners of the GLF 100-20 Corn Club got their very high yields using Atrazine as their weed killer. And this included those who grew corn for silage as well as grain.

"Mrs. Rose Bodner of Sussex, N. J. got her top grain yield of 150 bu./acre using Atrazine. And Atrazine was a part of GLF's Crop Package used by 6 of the 9 silage corn winners. (The others sprayed with GLF Weed Killer '66' (2,4D) to take care of their usual broadleaf weed problem.)

"We at GLF do not feel we can be too strong in our recommendations for Atrazine where there is a grass problem in corn. Myself and all the other GLF Crop Specialists have seen what Atrazine can do in the field. It can double corn yields.

"But I would like to point out this, too: It takes more than a good chemical weed control to do it. It takes intelligent all-round soil management planning.

"Start now to plan your corn fields . . . each one may need a different treatment. GLF has everything you need . . . the lime, fertilizer, adapted hybrids, Atrazine 80W and GLF Weed Killer '66' . . . spray rigs and attachments, and the planning help, including a soil analysis.

"Ask for the assistance of one of our corn field men today . . . And join the GLF 100-20 Corn Club . . . *100 bu./acre* for grain, and *20 tons/acre* in silage. The profits are there . . . in the seed and soil. All you have to supply is the good management."

Stratton M. McCargo

Strat McCargo
GLF Crop Specialist

GLF Quality

TECHNICAL FIELD SERVICE



DAIRY Management



FOLLOWING is a set of management recommendations for dairymen that have been adopted by the Nutrition Council of the American Feed Manufacturers Association. They are based upon the careful consideration of the Nutrition Council, the recommendations of the United States Department of Agriculture, and the nation's land grant colleges and experiment stations. Here goes:

Feed and Water

1. Provide 24 to 30 linear inches per head of manger space for roughage feeding.
2. Make feed bunks and roughage racks 24 to 30 inches wide when cattle feed from one side, and 36 inches when feeding from both sides.
3. Provide watering space as follows: One linear foot* of open tank per 8 to 10 head. One automatic bowl per 15 head.
4. Provide facilities to supply up to 40 gallons of water per head daily.
5. Water temperature may range from a low of 35-40 degrees in winter to a high of 80 degrees in summer.
6. Provide a minimum lot space per head as follows:
 A. All paved lots—100 sq. ft.
 B. Paved and soil lots—150 sq. ft.
 C. All soil lots—200 sq. ft.

Lot Facilities

7. Build lots with a slope of ¼ to ½ inch per foot in hard surface lots. In dirt lots provide ½ inch or more per foot depending upon soil and climatic conditions.
8. Provide a paved area at least 10 feet wide around waterers, feed bunks, roughage racks and entrances to sheds.
9. Under a loose housing system use open sheds.
10. Except in mild climates, provide bedding to help keep cows dry and comfortable. Use straw, shavings, corn cobs, sawdust, peanut hulls, etc. Use the type that is readily available at lowest cost.

General Management

11. Provide dairy cows with a minimum dry period of 6 weeks.
12. The desirable gain in body weight per cow during the dry period depends upon the condition of the animal at the beginning of the dry period. A guide to desirable gains is as follows: 800 to 1,000-pound cows—75 to 150 pounds gain; 1,000 to 1,200 pound cows—100 to 200 pound gain; 1,200 to 1,400-pound cows—125 to 250 pounds gain.
13. To reduce waste and improve feed utilization, grind, roll or crack all grain fed to the dairy herd.
14. Worm dairy cows when the need is demonstrated, preferably during the dry period. Worm during the lactation period only under direction of a veterinarian.
15. When need is demonstrated, treat dairy cows for external parasites. Use approved materials and methods.
16. Maintain a temperature of 50 to 60 degrees in the milking quarters during the winter.
17. To dry off average milking cows, reduce feed and abruptly stop milking. With very heavy milkers or cows with udder trouble, skip-milking (complete milking at extended time intervals) may be advisable.
18. Breed healthy dairy cows on the first heat period that follows 60 days after calving.

Health and Sanitation

19. Make a daily check of all animals for injury or disease.
20. Always use care in proper operation of milking machines.
21. Remove from lots, barns and pastures any obstacles, i.e., loose wire, etc., that might cause injury to animals.
22. Handle animals quietly to prevent excitement and injuries.
23. Isolate and milk infected or injured cows last, or use a separate milking unit.
24. Outline and follow a good sanitation program in the entire operation.
25. Use properly an approved disinfectant on all milking equipment.
26. Feed an adequate amount of a balanced ration at all times.
27. Isolate all new animals until their freedom from disease has been determined.
28. Keep dairy herd separated from other animals on the farm.
29. Follow the vaccination program recommended by a local veterinarian.
30. Fence or drain mud holes and ponds.

One foot of feeding or watering space. For example, a six foot feeder open on both sides has 12 linear feet of feeding space. The same principle applies to watering space.



★...from Seneca Falls, New York

"In our herd, ABS Daughters out-produce their dams without exception!"





Some of the ABS Daughters in the Nearpass herd.

say Royal and James Nearpass, father and son dairy team.

Their DHIA Herd Record

1960-61 29 cows 15,212 lbs. Milk 3.59% 547 lbs. B.F.

"We have been using American Breeders Service Great Proved Sires for about 11 years." Royal and James Nearpass of Seneca Falls, New York, say. "Now all of our 29 cows are ABS Proved Sire Daughters. Our first full year on DHIA test, in 1960-1961, confirmed what we were sure of previously . . . that you can't beat ABS Daughters for milk. We had the highest DHIA herd average in the county, 15,212 pounds of milk and 547 pounds of butterfat."

The Nearpass family decided some time ago not to keep any heifers that produced under 10,000 pounds in their first lactation. Now all their heifers average from 11,000 to 12,000 pounds.

"We've had to cull only two for low production in the past 10 years," Jim Nearpass says.

You too can increase production . . . and profit . . . in your herd with the ABS Proved Sire Breeding Program. You get the service of an outstanding bull *every time*. Your cows stand the best chance of settling with ABS Frozen Semen — national 60-90 day non-returns average 72 percent. And you get the know-how of an organization that's bred more than 11 million cows since 1941. For more information or service, call your ABS Distributor today.

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ABS EVERY SIRE PROVED GREAT

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Even-Flo fills corn, grass silage, shelled or crushed wet corn.

For information write Dept. A or see your Silo Company or Dealer.

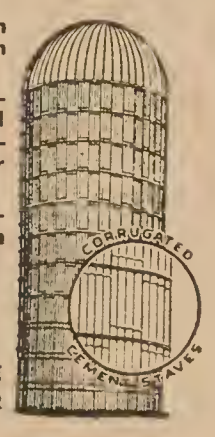
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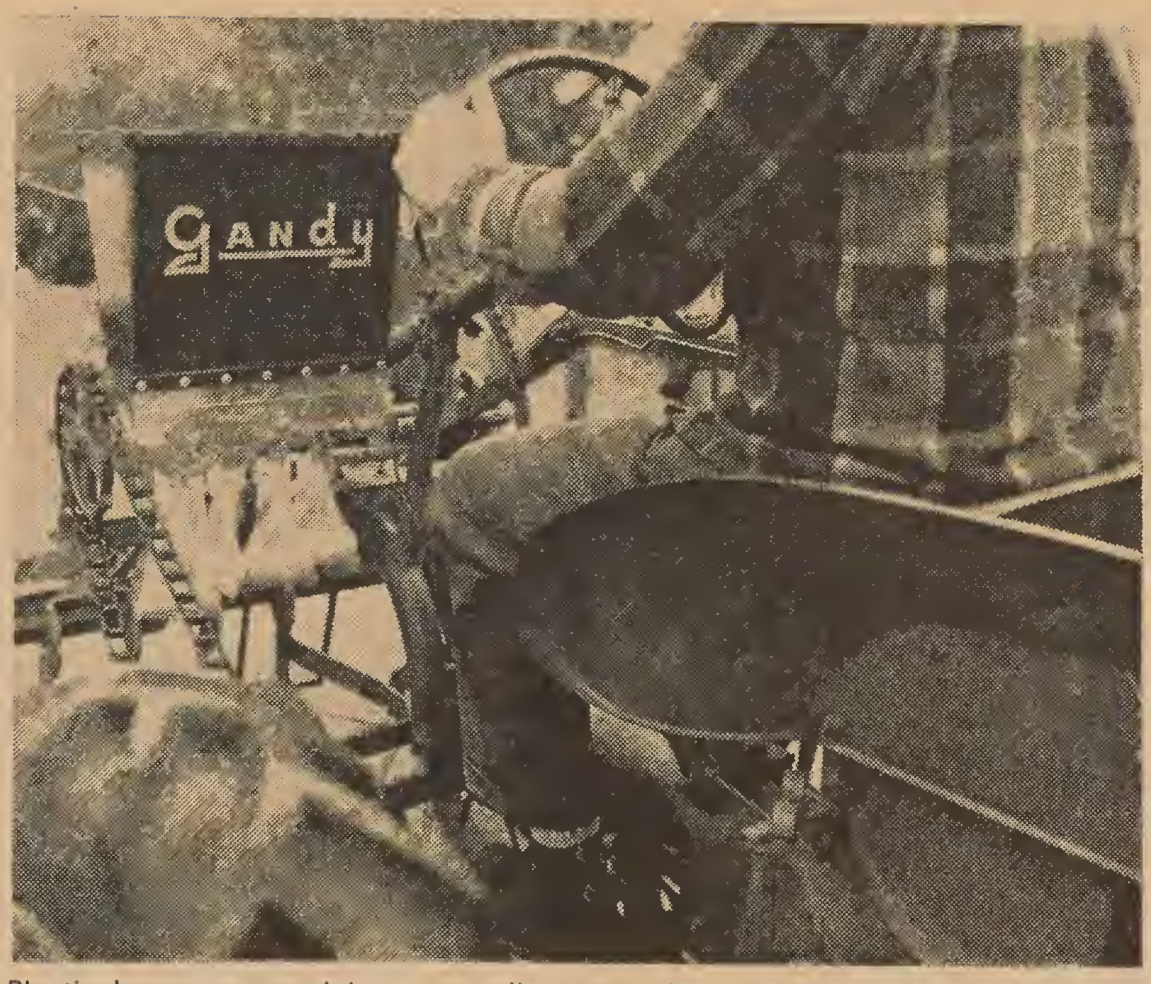
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Removes dirt, stems, and unwanted weed seeds. At same time separates cleaned seed into TWO GRADES.
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J. W. HANCE MFG. CO.; Westerville, Ohio
VAC-A-WAY SEED CLEANERS — TREAT-A-MATIC SEED TREATERS



Plastic bags are used here to collect granular insecticide for measurement.

Calibrating Granular Applicators and Sprayers

By M. W. MEADOWS*

WE'VE all heard the advice, "An ounce of prevention is worth a pound of cure." Many of us have taken this aged adage and turned it around to read: "If one ounce is good, two ounces are twice as good." Or, as with some who may be overly conscious of costs, it has been varied to: "If one pound will do the trick, three-quarters of a pound is just as good." In giving this a moment of thought, I wouldn't be surprised to find that all of us use both of these distortions under various situations.

Prevention Best

Now let's get back to the opening quotation as it pertains to agricultural chemicals used to control insects, weeds, and diseases. Literally speaking, this time-worn phrase is misleading because a great majority of agricultural chemicals are based on prevention and not cure. The so-called pound of cure usually ends up giving crop damage or excessive residues of the chemical used. With this in mind, we find that the effective use of an agricultural chemical is based on timely applications, proper methods of application, and correct rates of application.

"Correct rates of application" have been established as follows:

Pest control—with very few exceptions, the rate of chemical application has been arrived at through exhaustive research work conducted by state, federal, and commercial researchers who are experts in their field.

Crop tolerance—By the same procedure, chemicals and rates of application have been selected that will be tolerated and beneficial on the crops for which they are recommended.

Chemical residue—Practically every tool of the modern age, including chemical analysis, use of radioactive tracers, gas chromotography, bioassay, etc., have been used to establish safe use levels of chemicals as they pertain to the consumer of treated crops.

Methods that will aid in arriving at correct dosage rates should be simple, accurate, fast, and subject to a minimum of chances for error. Mathematical formulas based on equipment test runs over a measured course can be very accurate in the hands of an individual who is careful and good at figures. This method is time-consuming, however, and allows too many chances for error.

Probably the simplest method used by many is to operate the equipment over a measured acre and in this manner the amount of liquid or solid material can be measured or weighed. This also is very time-consuming. Some use a trial-and-error method whereby crops are actually treated, beginning with a predetermined setting of the equipment. Adjustments are then made as it becomes apparent that the rate of application was incorrect on the acres already treated. This becomes a very expensive procedure from the standpoint of crop damage or lack of control if the predetermined setting is too far off.

Actually, calibrations can be made easily, accurately, and swiftly by employing devices developed for this purpose. Use of these devices allows for correct dosage rates on the first acre treated. An occasional check insures that the desired dosage rate is maintained.

Sprayers

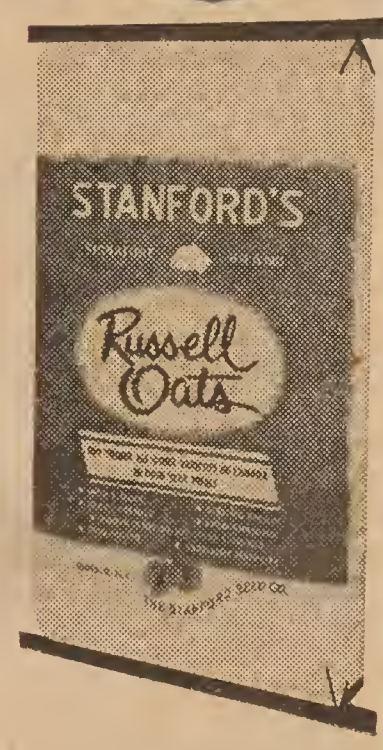
An inexpensive device, such as a calibrating jar, greatly simplifies sprayer calibration. The device is designed to collect spray over a measured source under usual operating conditions of speed, pressure, and nozzle spacing or band width. A scale on the device converts the level of the liquid collected in the jar to gallons per acre. No mathematical computations are required.

Where water solutions of a spray material are used, water alone can

(Continued on Opposite Page)

*Chemical Products Manager, G.L.F., Ithaca, N. Y.

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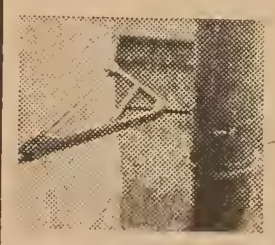
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Dates To Remember

March 3-10 — National 4-H Club Week.

March 8-9 — Annual Meeting Northeastern Dairy Conference, Benjamin Franklin Hotel, Philadelphia, Pa.

March 19-21—Annual Meeting of Poultry and Egg National Board, Palmer House, Chicago, Ill.

March 20-22 — Agricultural Progress Days, Cornell University.

Mar. 23, 24 — Little International Horse and Livestock Show, University of Connecticut, Storrs.

March 27-29 — Agricultural Science Youth Program, College of Agriculture, Ithaca, New York.

April 2-5 — Farm and Home Week, University of Maine, Orono.

Apr. 4—Dairy Farmers' Day, University of Connecticut, Storrs.

April 17—Annual Meeting, N.Y.S. Guernsey Breeders Cooperative, Auburn, N. Y.

May 12—Connecticut Sheep Day, University of Connecticut, Storrs.

May 17-18-19 — New York State FFA Convention, Lowville Central School, Lowville, N. Y.

May 19 — Beef Producers' Day, University of Connecticut, Storrs.

May 21 — Guernsey Sale, Woodacres, New Jersey.

June 12-15 — Neppco Egg Quality School, Univ. of Conn., Storrs.

June 16—4-H Horse Day, University of Connecticut, Storrs.

August 24-25 — NYABC Cattle Show, Ithaca, New York.

Oct. 25-26 — 1962 G.L.F. Stockholders' Annual Meeting, War Memorial, Syracuse, N. Y.

APPLICATORS AND SPRAYERS

(Continued from Opposite Page)

be employed during the calibration procedure. In instances where an undiluted chemical is applied, it is best to calibrate using the chemical.

Granular Materials

This type of equipment is more difficult to calibrate than sprayers. Calibration must be made with the material that will be applied. Other solid chemical mixtures that may appear similar in nature vary widely in bulk density and flow characteristics. By the same token, calibration runs must be made under field operating conditions. The old method of jacking up a piece of equipment and rotating the wheels can lead to serious errors. A newly developed device marketed under the trade name Gravi-Meter greatly simplifies the calibration procedure. No mathematical computations or scales are required. All that is necessary is a tape, bucket of water, and the Gravi-Meter.

Equipment is operated over a distance prescribed on the Gravi-Meter that takes into account the width of spread of the machine. The material that is delivered by the machine during the trial run is collected in some suitable container. This material is then transferred into the Gravi-Meter and the device floated in a bucket of water.

A vertical scale, reading at water level on the scale, converts the weight of the material to pounds per acre. From this point the equipment can be readjusted until the proper delivery rate is attained. Here again the equipment should be checked occasionally to make certain that the correct delivery rate is being maintained.

A final word of caution — maintain uniform rate of speed in operating chemical applicators. A speedometer or tachometer is a "must" in order to control rate of travel accurately.

NEW YORK STATE 4-H DAIRY WINNERS

(Continued from Page 20)

a senior at the Delhi Agricultural and Technical Institute, where he is majoring in Animal Husbandry.

Runners-up

Forty-nine counties named 267 boys and girls as County Dairy Breed Champions. One hundred thirty-one of them applied for the State awards. Many of these nominees have compiled achievement records which closely parallel those of the champions.

The closest competitors for the Holstein award and their counties were: Henry Beneke, Dutchess; Warren Cowen, Chautauqua; Sandra Keene, Otsego; Esther Gallant, Cayuga; David Reese, Chemung; and DeVeau (Dee) Hurley, Wayne.

Closest competitors for the Guernsey award were Charles Cuykendall, Cayuga; Robert Parnell, Livingston; Lynn Huntley, Columbia; John Kiechle, Jefferson; and Erwin Dent, Delaware.

The runners-up for the Brown Swiss award were Ingrid Goodwin, Chenango; James Warner, Cayuga; Richard Tyler, Delaware; Richard Stevens, Onondaga; and Evelyn Schillowski, Cayuga.

Boys and girls with excellent Ayrshire projects included David Sipher, St. Lawrence; Sharon Ann Stanley, Monroe; Gary Walseman, Lewis; Sarah Sine, Tompkins; and John McGuire, Sullivan.

Jersey cattle owners whose achievements closely paralleled that of Lloyd Johnson were Mary Ann Delaney, Cayuga; Allan Danforth, Schoharie; Janet Nash, Onondaga; Donald Dumas, Franklin; Paul Chippenden, Columbia; Carol Smith, Schoharie; and Diana Flannery, Wayne.

FUMIGATING EGGS

CHARLIE OSTRANDER of the Poultry Department at Cornell University tells us that fumigated grain can reduce egg size. This is especially true when the grains have not been properly "aired out" after fumigation. Oats are particularly bad actors because grain with a hull holds the fumigant longer than grains with hard surfaces.

When this trouble occurs in mature birds, egg size does not return to normal because of permanent injury to the liver.

The answer is to be sure that all the fumigant has been released from grain being fed to laying hens. A bin should be open for several days and run through a conveyor several times. Grinding and mixing also helps get rid of a fumigant. Grains taken directly from fumigated bins should never be fed to laying hens.

Before any farmer pushes the panic button, however, and decides not to fumigate grain or spray his grain bins with insecticide, remember that it's possible to kill the bugs without injuring livestock. Your county agent can give you the details, including USDA and college bulletins on the subject.



More and more farmers discover when they plant Funk's G-Hybrids, they can count on BIGGER YIELDS. Thousands prove this with side-by-side "weigh and compare" tests. In more than nine out of ten times, Funk's G-Hybrids outyield the competing strains they used and liked before.

This consistent "extra load" performance is the result of Funk's unmatched research. Bred into each kernel is extra drought and disease resistance . . . standability . . . GREATER CAPACITY TO PRODUCE.

Get the booklet, "18 Best New Ways to Increase Your Corn Growing Profits" . . . and the new 40-page Hoffman Catalog. Write A. H. HOFFMAN SEEDS, INC., Landisville (Lancaster County), Pa.

Your area's Hoffman Seed Man knows the best Funk's G-Hybrids (husking or silage) for your soil. He also can discuss sorghum, cover crops, birdsfoot trefoil, soy beans, all other farm crops, too. Ask for his address.

For better yields of Alfalfa, Clover, Oats, Pastures, start with

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50% Stronger Because They're 28% Thicker (14 ga.) of Special High Carbon Steel Painted or Galvanized

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"Seal Tite" protects door tops and headers against water running down building wall

Self-Oiling trolley wheel with factory-filled felt wick automatically oils itself for years

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SAVE $2 on the purchase of a pair of Cannon Ball Door Hangers . . . retail value at least $6. Limit of one coupon per purchase. Coupon is void in any state or locality where taxed, prohibited or restricted by law.

CASH IN on this special discount TODAY! Offer expires April 30, 1962.

CUSTOMER'S NAME

RFD OR TOWN STATE

DEALER'S NAME

TOWN STATE

Mr. Dealer: Redeem this completed coupon from your customer and send it to Starline, Inc., Harvard, Illinois, before midnight, April 30, 1962, for your reimbursement.

I WAS JUST FIGURING...

—by Cy Watkins



HOGS, HOGS—
EVERYWHERE

I took a trip to Iowa City a few days ago to visit a farmer named Ed Thomas, and I tell you, it's been a long time since I've seen so many good-lookin' hogs.

Ed's one of the country's leading Duroc Breeders. One of his boars, "Conelrad" just walked off with the 1961 National Duroc Congress' "Premier Sire" award.

But what was especially interesting to me was that Ed Thomas has been on the Watkins hog program for 20 years!

Obviously, Mr. Thomas **likes** the results he gets with Watkins MIN-VITE fortified rations. He has the recommended rations custom-mixed, so he knows exactly what he's feeding and exactly what it's costing.

His records show that the barrows he feeds out for market reach light market weight in 4½ to 5½ months. The feed efficiency is 2.8. The total feed cost is a little under $7.25 per hundred pounds of pork. (Instead of the $9 to $11 it costs most folks.)

Sure, Ed Thomas knows hogs. His management is good and he's feeding good stock with the bred-ability to make profitable pork. But the feed's important, too!

The feeding program that produces this low cost pork is the one recommended by Watkins. It lets you use home grown grain, locally-purchased proteins and it's fortified with MINerals, VITamins and antibiotics supplied by the pre-mix, Watkins MIN-VITE for Baby Pigs and MIN-VITE for Swine.

The Watkins Program is a "life-cycle" program. The ration is carefully balanced to suit the needs of hogs at their various growth stages. This gives you top performance because they get what they need for fast, efficient gains . . . and yet it saves valuable protein by not giving them more than they can use.

For instance, in the fattening and finishing period, pigs 50 to 100 lbs. get a 14% supplement; pigs 100 lbs. to 150 lbs. get 12%; pigs 150 lbs. to market get a 10% supplement. The MINeral-VITamin concentrations are adjusted the same way . . . and that saves you a pile of money.

What can Watkins MIN-VITE do for you? It can get your pigs to market fast, in 4½ to 5½ months. It can give you low-cost pork, probably about $7.50 per cwt., total feed cost.

WATKINS PRODUCTS, INC. Newark, N. J.

Farm Questions Answered

How can I put cornstalks down so that they will be plowed under?

Probably the most satisfactory results are obtained by going over the field with a flail-type chopper that cuts the stalks into such small pieces that they can cause no trouble. However, these machines are somewhat expensive, and few farms are equipped with them.

Many people disk cornstalks before plowing. However, this requires enough trips to chop the stalks, since, if they are merely cut off at the base, the likelihood of plow clogging is increased.

A sharp rolling coulter with the hub directly over the plow point and set to cut three or four inches deep is a real help in cutting stalks so that they will turn under. Best results are obtained when the stalks are wet and slimy since they are tougher and less likely to break and load up under the plow frame. I have less trouble if I plow the same direction as the row.

Heavy wires with one end attached to the tractor drawbar and trailing back so that the other end is actually plowed under, sometimes helps to pull trash down and reduce clogging.—*Hugh M. Wilson*

How much cost can be saved by plow-planting corn?

The University of Wisconsin reported planting costs of $11.85 an acre with conventional tillage and planting, compared to $6.85 when planted behind the plow.

Do pears have any feeding value for dairy cattle?

Most of the fruits or their by-products have been fed to dairy cattle in past years. Dried pear pomace containing 13% fiber was equal to dried beet pulp for dairy cattle in an Oregon trial when forming one-fourth of the concentrate mixture. In a Washington trial, silage made from a mixture of 3 to 4 parts pear waste and 1 part pasture clippings was a fair substitute for grass silage.

Pears are apparently somewhat lower in total digestible nutrients than apples and thus the silage furnishes considerably less TDN than would grass silage. Apples, on the other hand, on a dry matter basis are about 60% as valuable as a pound of corn silage.

I think I should caution you in regard to spray residues. It is currently not possible for us to use dried apple products because of the danger of spray residues getting into the milk supply.

—*Professor S. T. Slack*

What is a good method of pest control in home fruit plantings?

An all-purpose spray which is sold at most farm and garden stores. If you cannot obtain the all-purpose spray mixture you may purchase the individual components and mix them in the spray tank yourself. Captan should be used at the rate of 2 tablespoonfuls per gallon of spray solution; methoxychlor at the rate of 3 tablespoonfuls per gallon of spray solution; and malathion used at the rate of 2 tablespoonfuls per gallon of spray solution.

From the time the buds start to grow in the spring you only need to include captan to control the diseases. Starting at petal fall you should include the malathion and methoxychlor along with the captan. Normally insects are not troublesome prior to bloom and there is no reason to include insecticides in the all-purpose spray mixture.

However, starting at bloom, the insects become troublesome and you will need an insecticide through the remainder of the summer to control the insects satisfactorily. It is absolutely imperative to spray every seven to ten days if you are to control insects and diseases satisfactorily. If you extend the interval beyond ten days you will not have enough effective pesticide on the trees to control the insects.

—*Paul Wooley*

Is there a better feeding guide than feeding grain in proportion to milk produced?

Feeding a pound of grain to three pounds (or any set weight) of milk, tends to overfeed the low producers and underfeed the good cows. Another way is to increase the grain to individual cows as long as the increased milk pays for the increased feed. Of course, the cow that gets top-quality roughage will give the best returns for the grain she eats.

How many sheep could be maintained on four acres of land?

Four acres of land could maintain a flock of twenty ewes. To do this, it will be necessary to creep feed your lambs and also extra quantities of hay will be required. By weaning lambs while they are young, 10 to 12 weeks of age, and therefore removing them from pasture, it is possible to keep a flock of twenty ewes. The usual rate of stocking pasture is three to four ewes with lambs.

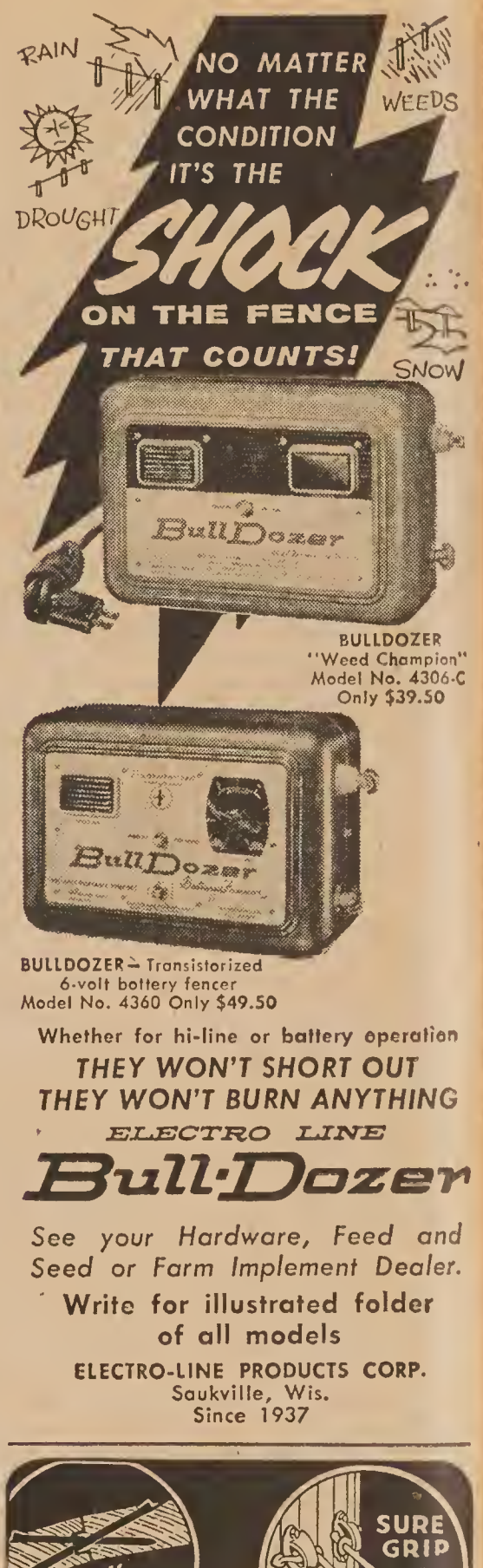
There has been some interest in dry lot feeding ewes throughout the entire year. Of course, such a procedure conserves forage and will extend the production of the lambs. However, a sheep is a very finicky animal and will refuse to eat green chopped forage which has deteriorated slightly. In addition to the fact that green chopped forage is not the most desirable feed for ewes, you should realize that it is even less desirable for fattening lambs.

Sheep can be successfully fed hay for the entire year but lambs cannot be fattened on hay. Therefore, it would be possible to purchase hay and also grain to bring to your farm providing you the opportunity of keeping more than twenty ewes. I doubt that such a procedure would be economical.

For more information a sheep production bulletin is available from Cornell University.—*Professor Warren F. Brannon*

How can scabby potatoes be avoided in the home garden?

The best way to avoid scabby potatoes is to plant a scab resistant variety such as Cherokee and Ontario. Sebago is also slightly resistant to scab.—*Professor Arthur Pratt*



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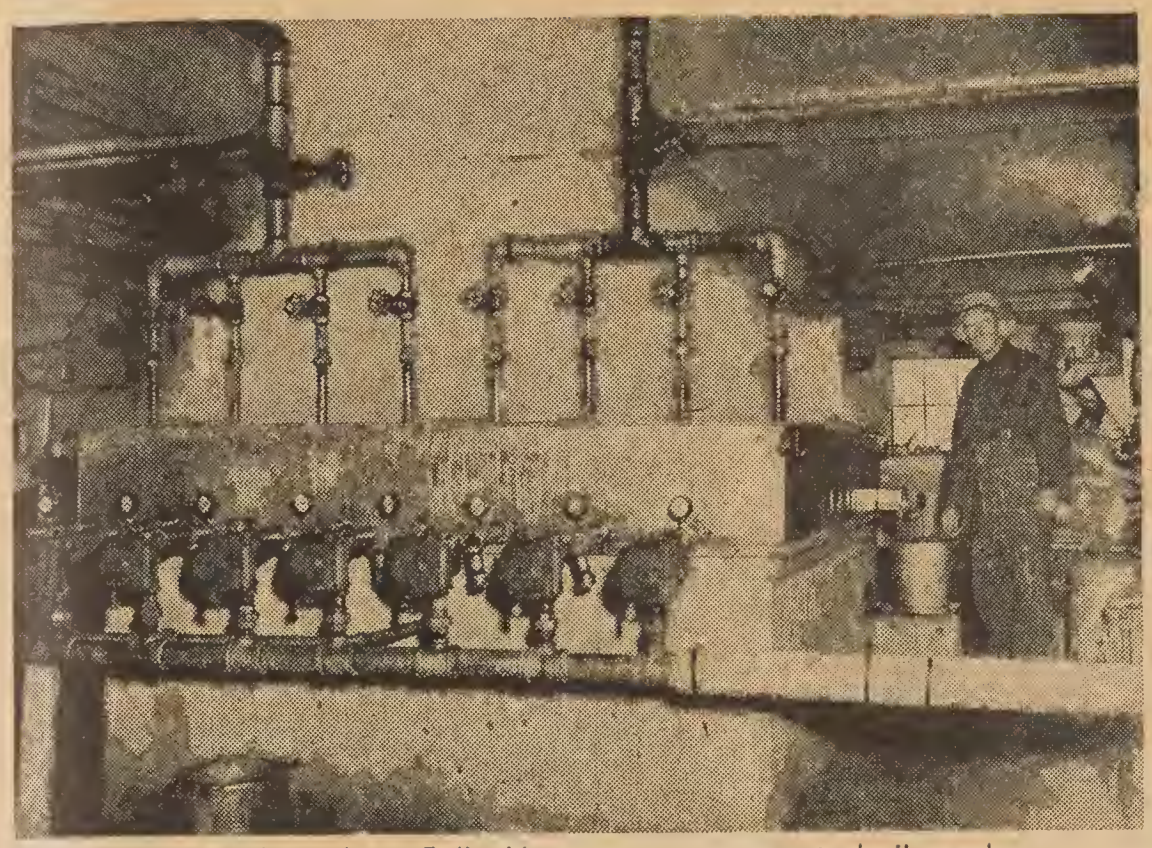


NATURALFLOW
MAPLE SAP TUBING FROM TREE TO VAT WITHOUT HANDLING

FLOMOR
MAPLE TAP HOLE PELLETS INSURING A LARGER FULL SEASON'S FLOW

FREE LITERATURE

A. C. LAMB & SONS Liverpool, N.Y.



Guy Green of Enosburg Falls, Vermont, uses steam to boil maple sap.

Sugarin' News

From The Maple State

By **BILL SHUTE***

VERMONT sugar makers, numbering nearly two thousand strong, are trying out a good many new ways of doing things this year. But they are going slow on some of the more impractical suggestions made to them—such as this or that chemical or plastic or pump or pill, before it has been proved that this "improvement" will not harm the trees or the syrup.

This idea (foreign to Vermont) of going ahead, ready or not, reminds us of a story. The village drunk used to tie up his team outside the tavern so it wouldn't go home before he'd had his fill. Finally he would come roaring out, forget that the team was tied, and start slapping the reins. Getting no place fast, he'd yell at them: "Git up, blast ya'. or I'll drive right over ya'!"

Sanitation — Folks at the Proctor Maple Research Sugar Bush have been studying taphole sanitation for many years, and there is no question but that treated tapholes give increased yields at the end of long seasons. There is, however, a serious question about possible harmful effects of disinfectants on the tree.

The Vermont Extension Service is lecturing at county meetings on the subject of sanitation; and the Markets Division of the Vermont Department of Agriculture employs four inspectors who make service calls on producers all spring, and inspect syrup in the market in the summer for the Vermont Maple Law. There is a small maple laboratory at the Markets Division, which makes a clearing house for the better sanitary methods being developed and tried out around the State.

Kitchen Maple Meetings — I wish I could take many of you along to one or more of our Kitchen Maple meetings. They are held in the evening, attended by the county agent, the area maple inspector, and the local sugar makers. Art Dahlbergh, area maple inspector in Caledonia County, and county agent Phil Grime, started them, and the idea is catching on around the State. Let's listen in on a small part of one of these meetings:

"Fellows, here is a model of a screen to put over your sap storage tank. You remember that last July our Markets Maple Letter advised that a sheet of polyethylene be floated on the sap. That is in order to keep the air away from the yeast and mold spores which are always present in sap, and which need surface air with which to grow. Since then we have found that some folks use plastic that gives off an odor to the sap, so test for odor first. Here is what the Maynards up around Bakersfield have constructed for a sap storage screen."

A discussion follows, and improvements on the screen are suggested. It is further brought out that particles left in the sap multiply the sugar sand, darken the syrup, and foul up the syrup filtering. Then the inspector shows a new sap strainer built like a hollow box with screen instead of a solid bottom. He states that the FDA frowns on the use of burlap strainers. One producer suggests a slanted screen to prevent a pile-up and constant wash-over of debris. And so an even better idea for a screen is evolved.

The inspector then reports on the exceptionally low sugar content found in hard frozen sap ice, and most of the group agree that boiling early season ice is a waste of wood. But later in the season, such ice can be used "to keep the sap cool."

Then follows a bit about the syrup crop. Volunteer area crop reporters are signed up; thus every week everyone knows what kind of a crop is developing when the cooperative report is released. Then the talk goes on to new types of tanks, like bulk milk tanks, for sap storage, and to the job of boiling in the sugar house.

At the Evaporator — The inspector tells of experiments started using a well-known defoaming agent to replace the use of butter, etc. The defoamer allows you to see the pan depth and sap movements, sugar sand is lessened, and quality improved.

He shows the new longer-target thermometer on which we have had the equipment dealer mark off the proper Baume density readings at intervals. This makes for easy reading of the density without need of a chart to find proper density for any given temperature. This ther-

(Continued on Page 45)

*Marketing Specialist, Vermont Department of Agriculture



It takes only ½ tsp. in 2 gallons of water to make a 100 ppm sanitizing solution!

Does it require "bulk" measuring to obtain a solution of equal concentration?



Experienced dairymen know how economical and efficient B-K Powder truly is! The 1¾-lb. plastic container of B-K Powder makes more than 1,000 gallons of 100 ppm available chlorine sanitizing solution, at the cost of only a penny for every 7.4 gallons—or more than 500 gallons of 200 ppm sanitizing solution, at the cost of only a penny for every 3.7 gallons! B-K Powder is this economical because it is concentrated: 50% available chlorine.

Trust improved B-K Powder—now in an unbreakable plastic container that means more safety in the milkhouse. There is a measuring spoon in every container!

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for weed and insect control

No water-hauling!

ROW-CROP APPLICATORS

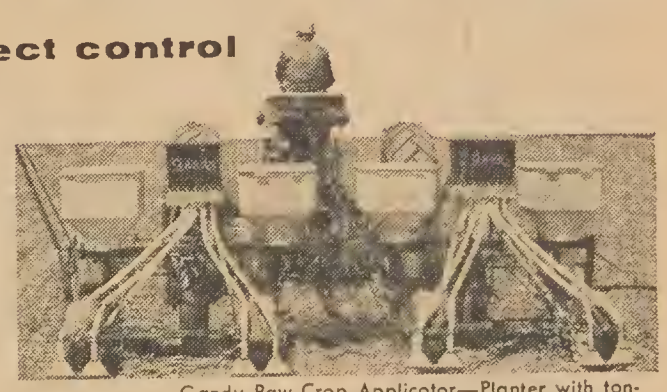
Control weeds and insects as you plant. 23 models . . . fit all 1, 2, 3, 4, 6 and 8-row planters.

PRECISION METERING—Set the Micrometer Rate Gauge by calibrated chart furnished and apply as little as 8 ounces up to 30 lbs. per acre . . . *accurately!*

PRECISION PLACEMENT—Places soil insecticide in top ½-inch of soil to preserve potency, provides insect-free zone. Patented Gandy *Twin Ro-Banders* apply weed-control granules uniformly on the soil surface.

PRECISION COVERAGE—Applies soil insecticide in band from 3 to 7 inches wide, weed control granules in band 14 inches wide over-the-row. Spreads uniformly even on steep side hills.

Adopted and recommended by leading planter manufacturers.

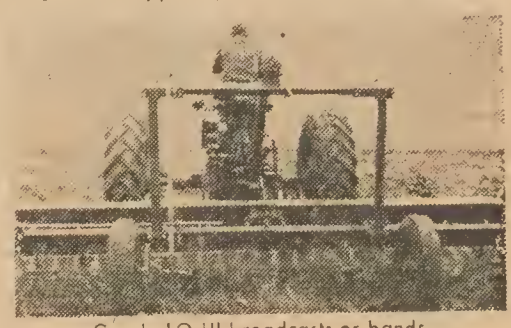


Gandy Raw-Crop Applicator—Planter with tandem-mounted Gandy units applies insecticide and weed control, plants, fertilizes . . . 4 jobs in one!

BROADCAST APPLICATORS

GANDY LO-HI applies insect and weed control granules on open fields or growing crops. Adjusts from 4 to 40-inch height, and to any row spacing. Available in 8, 10, 12, 14 ft. widths.

GANDY DISC-MOUNT broadcasts granular insecticides ahead of disc for incorporating with soil. Fits most discs and wheel-type field cultivators. Available in 8, 10, 12, 14-foot widths.



Gandy LO-HI broadcasts or bands



Gandy Disc-Mount does 2 jobs in 1

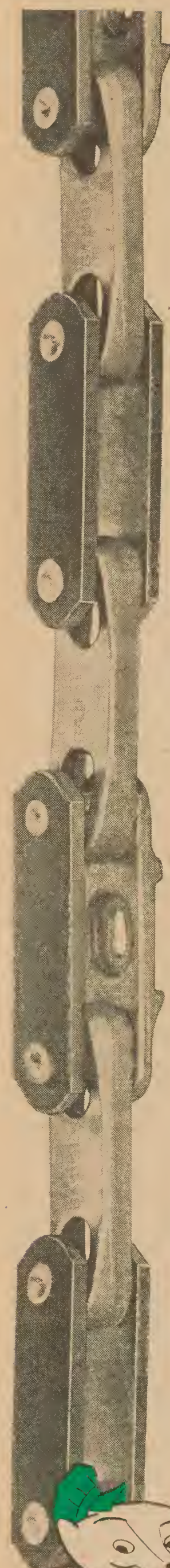
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MORE FARMERS BUY BADGER SILO UNLOADERS THAN ANY OTHER

DHIC Begins SNF Testing



Professor N. S. Golding of Washington State University, inventor of the plastic bead SNF test.

BEGINNING on December 15, 1961, the Dutchess County (New York) DHIC made available to its members a milk test for solids not fat in addition to regular butterfat tests. Growing rapidly in popularity, there are now about 36 herds in the county being tested for SNF, involving around 1,600 cows.

Winston Disbrow, manager of the DHIC laboratory at Millbrook, says that a few farmers were asking for the service even before it was available. They reasoned that protein is the magic word of the nutritionists right at the moment, and they believe that milk pricing will be based on SNF before very long. Most nutritionists believe that, other than egg white, milk provides the best source of protein. These dairymen want to be in a position to start selecting on the basis of SNF production and geneticists tell them it is inheritable just like butterfat.

The method being used is the Golding Plastic Beads Test, developed by researchers at Washington State University. Mr. Disbrow arranged for the purchase of testing bottles (costing $20 per dozen) and a mirror specially designed to see how many beads have settled out of the milk sample. The number of beads going to the bottom of the bottle provide a reading of the SNF level. He then built his own water bath for heating milk samples and another bath for cooling them quickly to the prescribed temperature. He reports that his laboratory technicians are already able to run SNF samples just a little faster than when testing for butterfat.

Representatives of the New York State DHIC at Ithaca have been in contact with Mr. Disbrow from the inception of the idea and have encouraged it. At present, it is available to dairymen in Dutchess County at a cost of 10 cents per cow per month.

Dr. Dan H. Jacobsen, director of product and nutrition research for the American Dairy Association, tells us that this test is as accurate for measuring solids in milk as the Babcock test is for determining butterfat content.



Don Stacy (left) and his son Theron. On the opposite side of the old stable is a similar space where heifers get hay.

Pen Stable for Heifers

WE BOUGHT a farm with an old barn, and two years ago we remodeled part of it for keeping young stock in pen stable style, arranged so they could run in and out any time they wanted to.

We find less trouble from ringworm, and we believe it is good for heifers to get out in the sunlight. They grow nicer coats, have better health, and we feel it tends to develop greater depth of body.

Right now we are remodeling the other end of the barn in the same way, with a separate outside exercise yard. We plan to keep open heifers at one side and bred heifers at the other. They are fed once a day with good hay and about two pounds of grain each. Altogether, at present we keep around 110 to 120 head of stock.—*Don and Theron Stacy, Canton, N. Y.*

EDITOR'S NOTE: At the recent meeting of the New York State Agricultural Society, the Stacys were named Century Farmers.

Clobber Those Weeds

(Continued from Page 11)

stand of quackgrass, will reduce the vigor of broad-leaved weed species not susccptible to Atraziné and will stir up a new crop of weed seeds. These seeds will germinate and be killed by the Atrazine in the surface soil.

Where crops susceptible to Atrazine are to be planted the following spring, fall applications of nitrogen plus dalapon will give seasonal control of quackgrass. The timing of treatments must be followed closely for effective results.

Apply 50 pounds of actual nitrogen to quackgrass sod betwcen August 20 and September 10. Quackgrass growth which will exceed four to five inches in height at the time the nitrogen is applied should be grazed or mowed prior to treatment.

The dalapon applications should be made by October 15. The nitrogen response on the quackgrass foliage (dark green) should be visible and the quackgrass actively growing before the chemical is applied. Approximately four weeks after the nitrogen is applied, apply 10 pounds of dalapon as an overall spray in 30 to 50 gallons of water. Earlier applications of dalapon may be less effective. A dry fall may slow the action of the nitrogen, however, and necessitate a delay in the dalapon application.

Plow Early

Plow the treated area as early as possible in the spring. To be most effective, the treated area should be plowed before or as soon as regrowth of the quackgrass begins to appear. The longer plowing is delayed, the less effective the treatment is for seasonal control. Since early plowing is necessary, the treatment should not be used on soils of poor drainage.

After plowing, the fields should be disced or harrowed to prevent regrowth of the quackgrass until planting. If planted to row crops, cultivation is beneficial in further reducing quackgrass competition. For corn, pre-emergence or early post-emergence applications of Atrazine or 2,4-D to control broad-leaved weeds and annual grasses is suggested. If annual grasses have been a problem on the field, Atrazine will be more effective than 2,4-D.

After-planting Treatments

With the pressure of spring work, unfavorable weather and in some instances, lack of planning, plowdown treatments for quackgrass control will not always be applied. The opportunity for control is then limited to pre-emergence or early post-emergence use of chemicals or by cultural operations. The greatest reduction in quackgrass competition by treatments applied after corn planting have been with Atrazine. The amount of control, however, has varied from excellent to poor. For any single year's treatment, a kill of quackgrass has been less frequent than seasonal suppression. Pre-emergence or early post emergence treatments of Atrazine will give seasonal control of the most common broad-leaved weeds and annual grasses. The kill or seasonal suppression of quackgrass growth has been less spectacular.

Post-emergence applications have been more effective than pre-emergence and 4 to 5 pounds of Atrazine 80W are necessary. The 2½ pound rate has resulted in seasonal suppression but has not killed quackgrass. Where rates higher than 2½ pounds of Atrazine 80W per acre are applied, the fields should be planted to corn the following season.

With the new chemicals now recommended, dairy farmers have the tools necessary to control quackgrass. It is important that label recommendations be followed and that farmers examine their cropping program to determine the best sequence of crops and treatments for their specific conditions.

Sugarin' News

(Continued from Page 43)

mometer also has a holder that angles the "time to draw off" mark out away from the steam for simpler reading, and is easily removed for cleaning and testing syrup temperature anywhere. He stresses the need to check automatics, dials, and like types of draw-off regulators several times a day with the old reliable red ring hot test mark barely showing on the Baume hydrometer.

Fancy adjustments with all sorts of instruments have been discussed in the past, but they always come back to reliance on the accurate and easy-to-handle Vermont hydrometer. We have tested some 700 hydrometers this winter, and our dealers have agreed to distribute only State-approved hydrometers to those producers demanding tested hydrometers.

The last lot we tested were far better than ever before, indicating that we are finally winning the long battle for accuracy. Still, since leaving a hydrometer in a hot sap pan melts its wax, sugar makers bring their hydrometers to the meeting and the inspector combines an accuracy check with a demonstration of how to do it. For example, never check in a syrup cup less than 2 inches across; always know the temperature of the syrup.

Filtering Problems—Next may come further discussion of experiments on pan cleaning agents, where we emphasize the fact that the use of milkstone cleaners which contain iodine may ruin maple flavor.

Filtering and settling tanks are discussed, with special mention of ways to can syrup direct from the filter. Other topics include the insulated tank, or the gas burner to maintain 188° hot pack temperature while canning, or the danger of using new mothballed filters without prewashing, and so on.

Containers—The "old reliable" standard lithographed tin can for packaging syrup is neither 100 percent reliable nor 100 percent standard. The inspector shows what syrup tastes like coming out of a can (filled without first inspecting) which contained an excess of joint sealing flux. It tastes **terrible!**

He shows why hammers and boards and fingers are not proper tools for the insertion of inner seals; why no air should be left in the can; why even modern "uppressit" closures might not seal if misapplied; why plastic containers have special problems; how to pack safely in glass—and so on through the evening, with the sugar makers giving as much as they get.

METROPOLITAN COOPERATIVE MILK PRODUCERS' BARGAINING AGENCY, INC.

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Forsythe

OPEN LETTER TO ALL DAIRYMEN ON AGENCY ACTIONS

You and I are deeply concerned about the problems caused by
declining consumption
increasing production
resulting lower milk prices

Representing 22,000 producers in 93 cooperatives, the Bargaining Agency is moving ahead constantly and vigorously on many fronts to help meet these problems.

PROMOTION

The Agency is strongly in favor of 100% producer participation and producer controlled **milk promotion and consumer education program** and is actively working toward this.

BARGAINING POWER

The Agency's Milk Diversion Committee is studying the possible added bargaining power which may be gained by **producer control of manufacturing facilities.**

PRODUCTION

Faced with the alternative of drastically reduced farm milk prices from the threatened cutoff of federal dairy price supports or the institution of production controls, the Agency pledges to use every means at its disposal to **protect producers' interests and incomes** in any proposed supply management program.

YOUR VIEWS

How do you feel about promotion to increase consumption, producer owned manufacturing facilities to handle excess surplus milk, supply management to prevent milk prices from dropping? As a representative of dairymen in this market on Secretary Freeman's Dairy Advisory Committee, I would like to know your views.

Write me today, YOUR ideas. YOUR reaction, YOUR views on these problems.

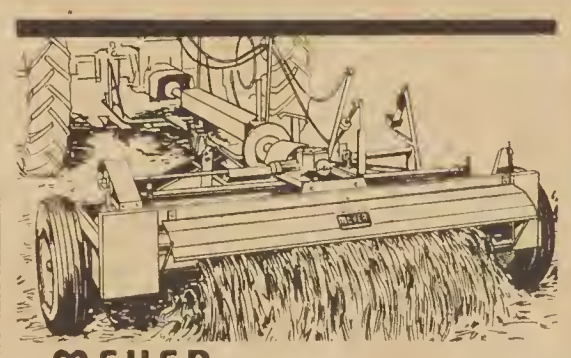
I look forward to hearing from you.

Cordially yours,

Robert C. Forsythe

Robert C. Forsythe, Manager.

MOVE AHEAD with a Cooperative Association of Milk Producers—93 cooperatives—representing 22,000 producers—united for improved milk marketing.



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Model 710 MEYER Hay Conditioner cuts and conditions at same time with new pitmonless mower. **Model 700** lets you use your own trailer-type or side-mounted mower. Windrowing attachment available.

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This year's outstanding hybrids for grain and silage—produce more bushels per acre. We also have 4 other varieties of hybrid and open-pollinated corn and a complete line of other farm seeds. All tested and proven on Northeastern farms. All backed by our 71-year reputation.

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KEEP 'EM MILKING WITH THIS 2-WAY ACTION

Dr. Naylor Dilators promote natural milking and normal healing because they ACT TWO WAYS:

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2. ACT MEDICALLY . . . Sulfathiazole in each Dilator is released in the teat for prolonged antiseptic action directly at site of trouble.

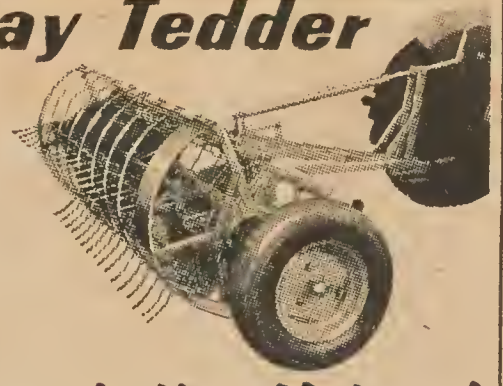
EASY TO USE . . . just keep a Dr. Naylor Dilator in teat between milkings until teat milks free by hand. *At drug and farm stores or postpaid.*

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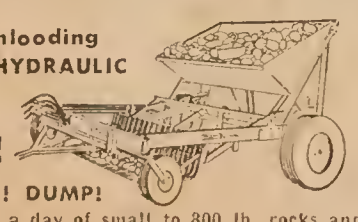
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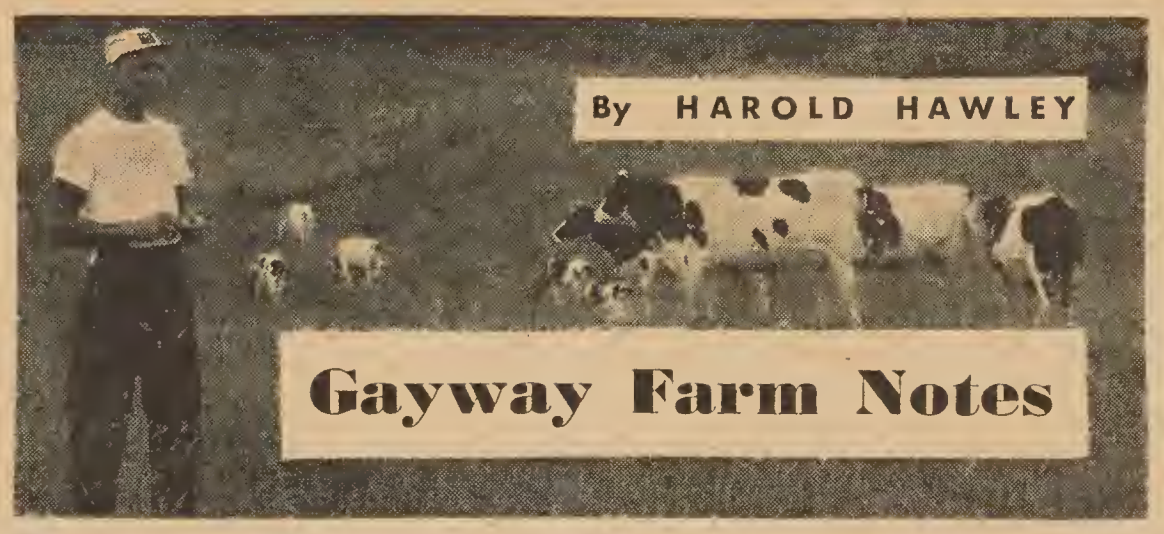
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THE BEST MEAL

THE nutritionists keep putting out the line that breakfast is the most important meal of the day. So, all right! What farmer who has put close to a half day's work behind him before he gets to the table needs to be told this? However, I have discovered an amazing fact about farm breakfasts. That ancient and honorable "piece de resistance" of the rural breakfast of yesteryear is no longer a "must" on some tables. What a pity! I refer, of course, to a generous helping of hash-browned potatoes. Now, here is something to really complement the bacon and eggs.

I never was of the "pancakes for breakfast" crowd, having got started as a boy on potatoes, eggs, bacon or sausage, plus the other items which put a man in shape to sally forth in search of new worlds to conquer. This was and is a stick-to-your-ribs combination of nature's best as far as I am concerned. The only way really to improve this menu would be to add hot bread or sweet rolls. Let's merely say it's hard to get cooperation from the culinary department on this last one.

Potatoes are due to be better, too. We have been paying a premium for red-skinned Pontiacs and think they are well worth it. Last month in Albany we had an opportunity to eat a new variety of potato grown on Long Island. It was served baked, and it's hard to believe any Idaho baker ever tasted better. I hope someone will tell me the variety. Potatoes as good as either of these two varieties should help people forget calories and start living.

WATERING CALVES

Things seem to have a way of going in cycles around here. Maybe this is partly a reaction to finding out from time to time that some of what we knew we knew just isn't so. As an example, we used to water calves in pails until they got up to six or eight months before we let them have all they wanted from a drinking cup or stock tank.

Then we got lazy and watered them with drinking cups after they were eight or ten weeks old. It was easier, but we felt the calves drank too much and therefore ate too little hay and grain—and gained less rapidly than they should. So, back to watering them with a pail after one season of automation in the calf pens.

Comes that old urge to cut down on the work, and we are again toying with the idea of piping the water back into the pens. How does it work out for you?

UNBALANCE?

The wildlife people are forever telling us about the tendency in nature to maintain a balance between various species of birds and animals. Two or three years ago the Conservation trappers pretty well wiped out foxes around here as a rabies control measure. This, of course, created an unbalanced situation, with more people like me who like to hunt them than there were foxes. However, that is not the problem.

With one of their most serious natural enemies gone, field mice have multiplied unbelievably. I have counted as many as a dozen several mornings while spreading a load of manure.

With a dietary staple such as mice so plentiful, the hawks have been doing pretty well, too. They have become much more common than normal. Fat and lazy, they can be seen in the top of a tree ready to make their move whenever a mouse appears. Now, I suppose, with feed so abundant, the foxes which did escape or which move in will have large litters and multiply rapidly until they begin to get the mouse population cut down to size. Well, this is where we came in . . .

"COLD DAY IN JULY"

If we get that oft-mentioned cold day, those who have to work outside surely will be a lot better able to dress for it than was the case just a few years back. I often think of how cold we used to get riding behind a team in the sleigh, or, more recently, standing around at an auction. But now, thanks to new materials and design, it's not too bad to be out even on the rough days. What a boon these insulated shoes and boots are—not to mention insulated socks, underwear, and sweat shirts. The parka hood sure gets my vote, too.

With all these improvements one can keep warm and comfortable without being stoop-shouldered and bow-legged from carrying around the necessary clothes. All this, plus freedom to move and work! I recall an old horse hide (I think) coat of my dad's which was dragged out on occasion to combat the elements. It took a good man or a fair horse to carry it around.

With today's better clothes and boots, bad weather can mostly be taken in stride. This is progress which we much appreciate. It makes for more comfort and better health, too.

WHEAT GRADING

Those who do not raise wheat will have forgotten, but wheat growers well remember the long wet spell just at the time when combining should have commenced. Ripe wheat stood under these damp conditions long enough for some of it to start to sprout. Some kernels formed a small dark spot at the end where the sprout would show if sprouting had occurred. Anyway, the graders are throwing out these kernels. This makes the "damage" on some bins of wheat 12 to 20 percent.

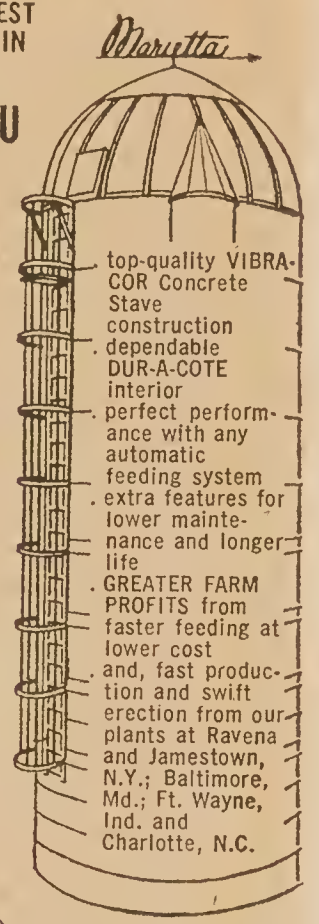
The puzzling thing about all this

(Continued on Opposite Page)

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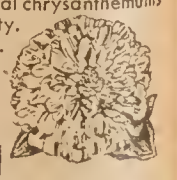
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Cuttin' or Cussin'?

(Continued from Page 1)

and it was decided to give it a fresh start. It started – and in the next three rounds the mower bar plugged 32 times!

The situation is not hopeless nor the problems unsolvable—only temporarily troublesome. Trouble is always the stimulant to progress—and progress has been made.

Why does the cutter bar plug up? If this question can be answered, then progress has begun. A careful analysis points out that on heavy yields of grasses the lower leaves of the plant do not receive enough sunlight for sturdy growth. These leaves become limp, turn yellow and dry out. They are very tough and are not always cut when they reach the knife. They bunch up in front of the knife, under the lip of the guard and under the hold-down clip. This bunching is the forerunner of the clogging that is sure to follow.

Blades Pierced

Some blades of these heavy, dry grasses are pierced by the guard points and a "build-up" occurs. Heavy fertility grows the plant so rapidly that the stems are not strong enough to hold the plant upright. They are more like leaves than stems — they are green, succulent, tender and broad. They "envelope" over the guard points and build-up occurs; this is also referred to by the very descriptive term, "hairpinning."

The outer shoe, the grass board, and the grass stick consistently fail to function as they are designed to do when they encounter a heavy green mass of forage. A build-up will occur along any part of these devices because of the failure evenly to divide and distribute the cut forage from the uncut standing crop.

In light of the above, it appears that mower and guard design present the **major** reason for clogging, although there are also other things to consider. But if we stick to discussing the mower itself for now, we find that design items stand out:

- **Any part of the guard, guard surface, or cutter bar that makes first contact with the plant must be a cutting surface, either in motion or stationary.**
- **The forward motion of the cutter bar should provide enough energy efficiently to divide the swath from the uncut stand, clear a track for the inner shoe on the next round, and distribute the "overlay" of cut forage from this track into a larger area for uniform drying, and keep the cutter bar clean of cut material.**

Do any mowers presently on the market incorporate either of these design characteristics? Yes, there are two as of this writing. They are the double sickle mower and the mower bar equipped with the "non-clog" or "clog-free" guards. Both these mowers incorporate the first of the mentioned design characteristics.

One farm equipment manufacturer, and perhaps there are others, has developed and tested a type of vertical cutter, power take-off driven, mounted at the outer end of the cutter bar, which has had fair success in cutting through tangled masses of forage. This development is a step in the right direction as discussed in the second design characteristic.

The double sickle mower and the "clog-free" guard mower have performed exceedingly well this past season. They have been accepted by many farmers and some researchers as the answer to cutting high yielding forages. If you are having cutting troubles, it would be worth your time to investigate these mowers, ask for a demonstration **on your own farm,** under **your** conditions, and then make your decision.

Let's back-track to those other factors mentioned earlier that are also guilty of causing clogging. They include the physical condition of the field, the driving techniques of the operator, and the mechanical adjustment of the mower.

How do these compare in importance with mower design? In a series of five field trials, all stops were recorded and reasons determined for clogging. In these trials, 38% of the stops were charged against driving techniques, 31% against physical condition of the field, the driving techniques of the mower, and 25% against mower design. This means that 75% of these stops were in categories all of which are under the control of the operator!

You can minimize many mowing difficulties, completely eliminate some, and increase field efficiency by practicing some simple rules:

- Any mashing, running down, or turning around on uncut grass should be avoided at all times.
- A clean-up operation should be performed on all fields after removal of a cutting. All skippers, plugs, clumps, and missed windrows should be eliminated; a flail harvester works just dandy for this operation.
- Cut before the lower parts of the grass plant become yellow, dead, and rotted (if the weatherman cooperates).
- Shred as fine as possible any manure spread on the field.
- Avoid any vehicular traffic on the field that would "dig in" and make ruts through the sod.
- Perform all adjustments, care and operation procedures on the mower according to manufacturer's recommendations.
- Install a continuous maintenance program on mowers, not a slipshod "maintain-when-broken-down" program.
- Maintain rated rpm on the power take-off drive when rounding corners while mowing.
- "Rev-up" sickle speed to rated recommendations before moving the mower forward into the uncut grass.

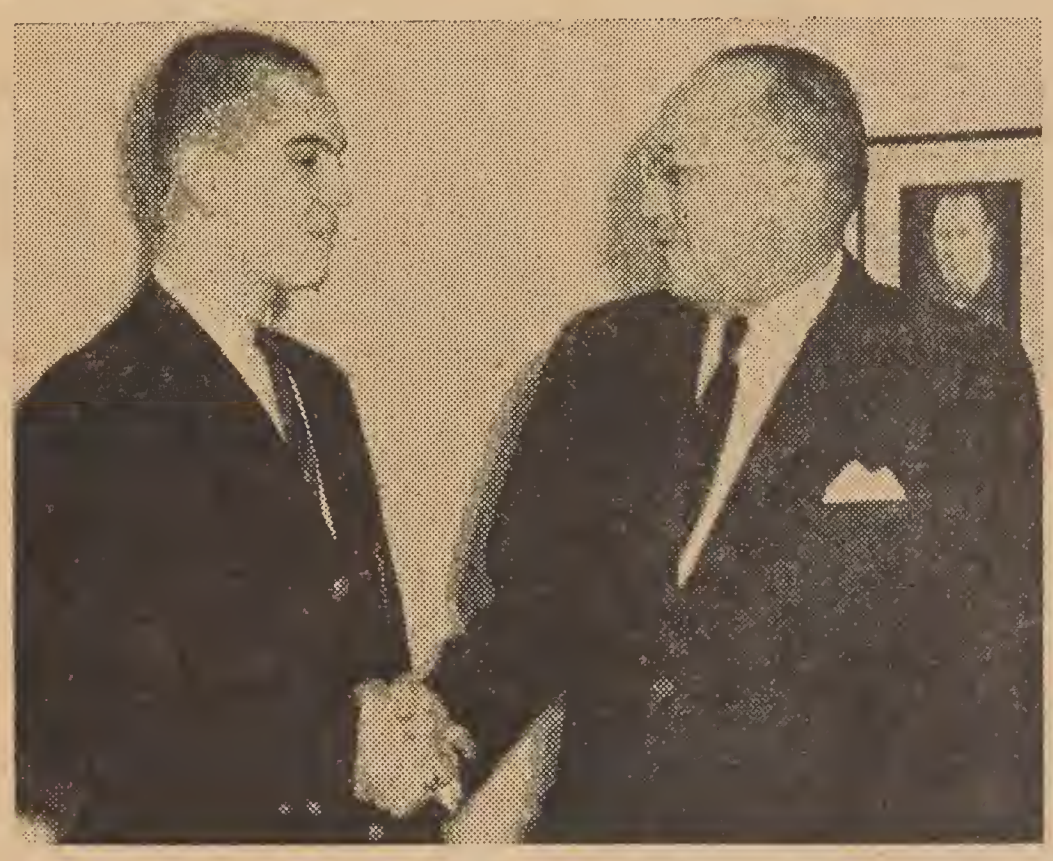
For details on "better cuttin' and less cussin'", write to the author in care of this magazine for your free copy of Circular 489 and its accompanying paper.



Gayway Farm Notes

(Continued from Opposite Page)

to some of us is that local millers buy and use this wheat at a good price, but if it goes to a buyer whose ultimate outlet is the Government, the discount on the same wheat is rather severe. Whether the Government grading is more severe than formerly (as many believe) due to more strict rules by the Pure Food and Drug people, or the fact that the Government already has more wheat than they want, is a question hard to get answered. At any rate, a lot of pretty good wheat is bringing the grower less than he expected. Too bad there aren't enough poultrymen left to use up this "damaged" wheat.



TRIBUTE to a Young Man on the way up!

It doesn't take long to recognize that young 4-H Club member Richard Brewer of Oneida is a "young man on the way up"—a young man with a bright future.

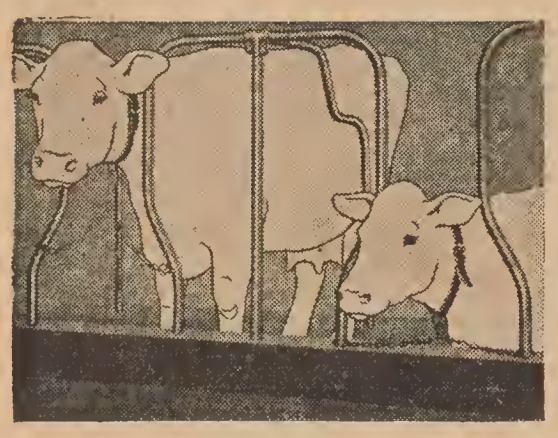
Richard is shown above receiving a $400 college scholarship award from Earle J. Machold, president of Niagara Mohawk Power Corporation. The award was given in recognition of Richard's outstanding achievement in winning the National 4-H Electricity Award while competing with 4-H Club members from throughout the nation.

Madison County residents can well be proud of Richard. During eight years with the "Wampsville County Seaters" 4-H Club, he has compiled a brilliant record of community service.

The future of our country lies in young men like Richard Brewer, and Niagara Mohawk is happy to contribute to the college education of this "young man on the way up".

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PREVENT LEG INJURY

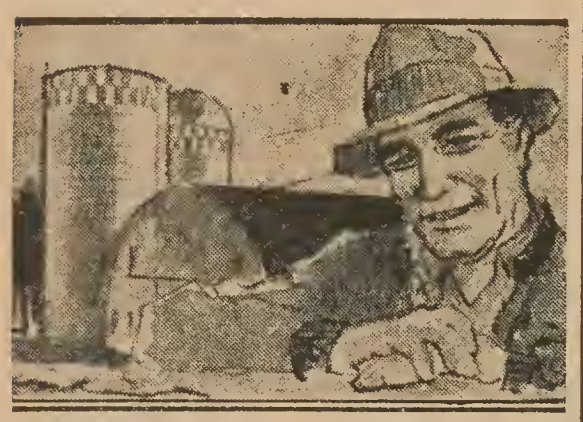
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The Keystone of Progress is a

Scientific Agriculture

By EARL L. BUTZ*

TONIGHT, in many nations around the world two people in three will go to bed with a prayer on their lips, "Lord, give me enough food to last through tomorrow." Tonight, in the United States, two people in three will go to bed with a prayer on their lips, "Lord, give me courage to stay on my diet tomorrow."

What a privilege is ours to live in this blessed land of abundance!

The application of science to American agriculture forms the very cornerstone of the high standard of life that all our people enjoy. American agriculture is now feeding our growing population on science and technology. Average output per worker in American agriculture has more than doubled in the last quarter century. This is a record of increased efficiency that can be matched in very few places in the American economy. We do this so efficiently in this country that over 9/10ths of our population is available to produce the wide variety of goods and services that make up the American standard of living.


Earl Butz

By way of contrast, the Russian agriculture is so inefficient that some of their workers are required to produce enough food to keep the population going at a subsistence level. As a consequence, there just isn't enough manpower (or womanpower) left to produce things to make life very pleasant in that country. So long as our output per agricultural worker remains five times above theirs, there can be little doubt concerning the ultimate outcome of the struggle between our two systems.

Research Pays Off

Today's farm production job is a synthesis of several scientific disciplines. In grandad's day the earning capacity of the average farmer was limited primarily by his physical strength and the amount of work he could do. Agriculture was primarily a means of converting muscle energy into farm produce.

Human energy is much less important in today's farm operation; energy can be purchased so much more cheaply than it can be provided by man. Today's farm operator is a combination manager-applicator of the life sciences, the physical sciences, and the social sciences. The research undergirding modern agriculture ranges all the way from physics to physiology, from biology to business.

It is no accident that the American economic and political system has brought living standards for all our people unparalleled in any other country on the face of the earth. America is just in her adolescent stage, as measured against the long backdrop of the history of nations.

With only 6 percent of the world's population within our boundaries, we have 1/3rd of the world's productive capacity, 3/5ths of the world's passenger automobiles, over half of the world's telephones, half of the world's electric power production capacity, 2/5ths of the world's steel production capacity, and an agricultural plant whose productive capacity continues to amaze us all. In addition, 26 percent of our total population is enrolled in school from the kindergarten through college, 98 percent of our farms are electrified, new home construction passed the one million mark again last year for the 14th straight year, and every community is busy with construction of new schools, new churches, new business buildings, and new highways.

Truly America is a choice land.

These blessings of abundance are ours today because our educational systems emphasize applied science and education as well as the theoretical.

Thrilling Future

It is sometimes said that this is the age of science and technology based on research. The frontiers of the mind have replaced the frontiers of geography. A thrilling experience awaits every citizen in this great land who has the capacity and the imagination to "dream constructively."

Our agriculture of 1970 will be farther ahead of now than now is ahead of 1950. One farm worker now feeds and clothes himself and 27 others. This ratio has trebled in the last generation. By 1970 fewer workers on our farms than now will be feeding 215 million Americans—30 million more than now. One farm worker will feed and clothe about 50 other people — better than ever before in history. When Mr. Khrushchev sees that, he may modify his oft-repeated boast about the Russian farmer overtaking the American farmer in per capita production of meat, milk, and eggs.

Only about 7 percent of our total population will be members of farm families in 1970. This contrasts with 10 percent now, and more than 25 percent a generation ago. By 1970, we'll have a fifth fewer farms than now, just as we now have about one-fifth fewer than 10 years ago.

During each of the 1960's, our agricultural plant will use more capital, more science and technology, more managerial capacity, more purchased production inputs, more specialized marketing facilities, and more research, than the year before. It is obvious, therefore, that those writers and analysts who refer to agriculture as a "declining" industry look only at a single phase of this growing and important American industry.

The 1950's brought us a 25 percent increase in total farm output with virtually no change in total production inputs. Most of this was the result of greatly improved crop yields —little of it came from increased livestock efficiency. Grain sorghum yields increased 75 percent, cotton 55 percent, corn 35 percent, wheat 33 percent, and soybeans 20 percent.

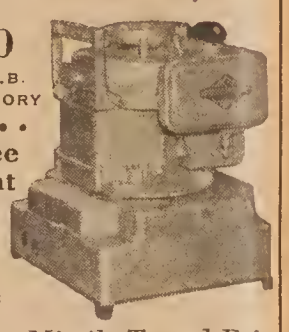
The next decade will witness a

(Continued on Opposite Page)

*Dean of Agriculture, Purdue University, Lafayette, Indiana.

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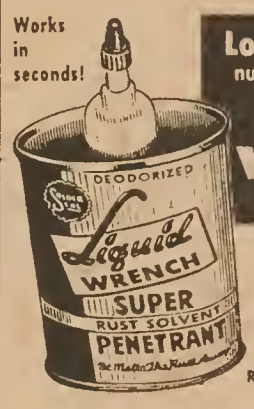
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(Continued from Opposite Page)

tremendous upsurge in efficiency of producing meat and milk. Changes here will be comparable with those in the broiler industry in the 1950's.

By 1970, the unduly long hours of farm toil and drudgery will be only a conversation topic among the old-timers. We'll use a fourth fewer man hours of labor for farm work to produce a fourth more output. Family farms will be larger with much more capital—**but still family farms.** It will not be uncommon for a good family farmer to operate a unit of 400 to 600 acres, with a quarter million dollars invested in his business. In such cases, one hundred thousand dollars or more will represent working capital, such as machinery, livestock, feed inventory, and current supplies.

An increasing share of this capital will come from off-the-farm sources, either from specialized credit agencies or from farm suppliers through some contractual arrangement. This does not mean that the individual farmer will lose his independence through integration. Instead, it means that he will enlarge his earning potential by increasing his volume through the use of outside capital and planned coordination of his farm production with the processing and selling phases of the total food and fiber industry.

Many production practices of 1970 will bear little relation to those of 1960. The relentless march of science will revolutionize agriculture. Crop cultivation will have been rendered obsolete by pre-emergence weed control. Highly effective herbicides and pesticides will do the rest. Seedbed preparation and planting in one operation will be the rule. Larger power units will permit one farm worker to cover far more acres than today. Type of power itself will change as we move into the Nuclear Age. Before 1970 you may be able to purchase a nuclear farm tractor with enough fuel locked in it to last until the bearings wear out.

Farmers will produce to a predetermined market with respect to quality, time of marketing, and type of product. No longer will they produce anything and then seek a market at whatever price it will bring. They will use their knowledge of genetics, physiology, and environmental factors to produce "to specification" for a particular kind of market demand, just as industry now does. This will enhance selling price and income.

One-fifth fewer farmers in 1970 than now by no means portends decay of the rural community. It will be stronger than now, although substantially different. Large numbers of urban workers, many of them former farm families, will live in the country. As these urban-oriented families intermingle with farm families in church, school, 4-H clubs, and or social occasions, a new urban culture will emerge. This will combine the best of our present rural and urban cultures.

In this environment, the commercial family farmer, using large amounts of capital, science and technology, will increasingly assume the characteristics of a business establishment.

The farmer will be a businessman in much the same sense as is his city cousin. He will demand and will receive comparable levels of income and of satisfaction from life.

Organized and imaginative research is the vehicle which will push the scientific frontier beyond limits we scarcely dare dream of today. It follows logically, therefore, that **if** we can keep our economy free and preserve an environment in which individuals are free to dream a little about new techniques and new ideas, and to enjoy the fruits of their dreams, we shall experience phenomenal progress in the next generation.

Country Pastor

Find Your Dream

By ARTHUR MOODY

NINETEEN HUNDRED odd years ago a Jew turned Christian. Saul became Paul, and defended his acts with the declaration, "Wherefore, O King, I was not disobedient unto the heavenly vision." The business of **turning a dream into reality** developed Paul into an international figure, established many churches, and set in motion a movement which has touched every nation on this earth.



ARTHUR MOODY

The idea of a dream's influence has appeared in many forms since Paul's day. "Climb every mountain, ford every stream, follow every rainbow 'til you **find your dream,**" sings a searcher in a modern opera. Sure, it's "light opera", but it finds a basic response in many souls hungering for something finer, better—even beyond the best, if possible.

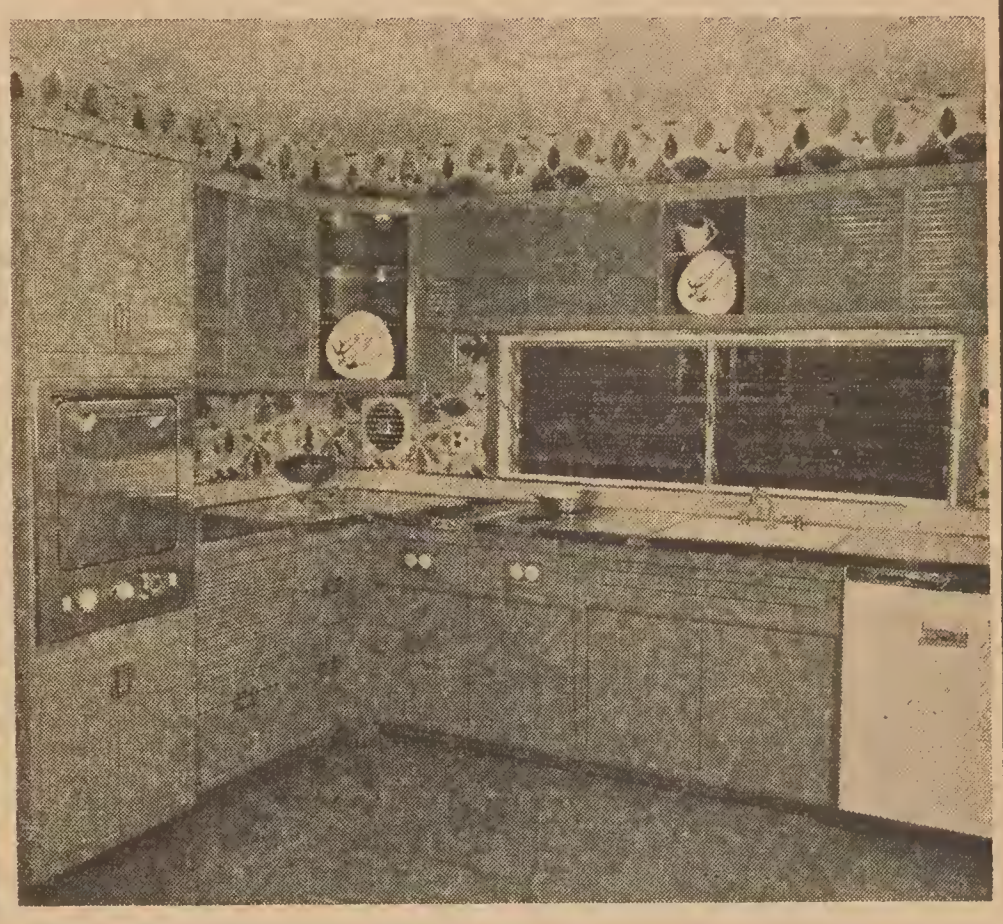
Another "light" production, filled with very human longings, expresses the idea in a very crude, yet hearty way: **"You gotta have a dream,** if you're gonna have a dream come true."

The **reach of the soul heavenward,** is vital. It gives zest, interest, purpose to life. Progress is made out of dreams; so is improvement. Man's transcendent deeds eventuate from the seed ideas provided by visions, dreams—deep, unexpressed purposes. There's a mighty lift to life when you're sure your dream fits into the Divine plan and purpose.

BETTER BULLS MEAN BETTER LIVING

for farm families





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NYABC has 4 of top 5 sires ranked on milk production; available regularly these 4 average 117M and 15F above breed DHIA average.

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All 6 top sires are NYABC; available regularly these 6 exceed breed DHIA average by 158M and 14F.

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April Issue	Closes Mar. 5	June Issue	Closes May 5
May Issue	Closes April 5	July Issue	Closes June 5

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(Continued on Opposite Page)

(Continued from Opposite Page)

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FREE, WEST'S "GUIDE" service. Farm lists Maine to Virginia. State price range— location. West's Brokers, Mansfield, Pa.

IMMEDIATE SALE! 286 level tillable acres. 68 stanchion drive thru barn. 2 silos. Machinery buildings. 10 room home, oil furnace. $26,500. Will sell complete. Mohawk Valley. 130 acres, 100 grain land. 46 stanchion barn, gutter cleaner, bulk tank, dumping station. 2 silos. 8 room home, 2 baths, oil heat. 40 cows. 14 others. 3 tractors, modern equipment. Shipped 1½ ton daily. $44,500. Wimple, Sloansville, N. Y.

CHOICE FARM, 400 ACRES, over 50% tillable. Excellent soil. Barn ties 77 head, plus pens. Pipeline milker. Bulk tank. Two houses. 70 head registered Holsteins. Completly equipped. All for $120,000. Bare $65,000. Petteys Agency, Greenwich, N. Y. Myrtle 2-2950.

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WITH 80 HOLSTEIN cows, heifers and bull, ensilage, hay, tractor, truck, farm machinery and tools—all included; $12,000 income from milk alone reported last year; buildings in good repair; 180 acres, about 80 in fertile fields, brook, sugar maples valuable woodland; 8 room and 2 bath dwelling, furnace, 2 fireplaces, electricity, spring water, new cow stable 34x62, 65 stanchions, drinking cups, many other buildings; at village edge, going lock, stock and barrel at $44,000, part down. Strout Realty, Contoocook, N. H. Phone: (603) -746-3614. Ask also for Free Property Lists.

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FOR SALE: 140 ACRES, drive thru barn 35x80. 34 ties. Fair house. 14 milk cows, some machinery. $16,000 with $5,000 down. Bare farm 185 acres. 100 tillable. Fair 12 room two family house with bath and new automatic oil furnace. Fair barn, 27 ties. Tile silo 14x32, some machinery. Good location on main road, mail and school bus at the door. $20,000 with ⅓ down. Sadlon Real Estate, James Vickerson Salesman, East Springfield, N. Y.

160 ACRE FARM. 40 ties, productive land, beautiful colonial home, $16,500. 250 acre farm, 40 ties, drive-thru barn, 8-room home, $13,500. Poultry farm 3,000 capacity, 60 acres, good house, $5,500. Pearson, Realtor, Route 20, Sloansville, N. Y.

FARM ESTATE FOR SALE. On crest between Cayuga and Owasco Lakes. 860 acres class 5 highly productive land in one solid block. 750 acres under cultivation. Progressive farm community; two airports 25 and 40 miles by state highway. Farm now being operated as beef cattle, general farming business. Five houses—two completely modernized. One 13 room mansion, fine architecture. Another fine brick house 10 rooms. Five barns, fair condition. Land level, large fields easily worked by heavy machinery. Four farm ponds. Well water amply supplies all but one section of block. All buildings on hard top road one mile from state highway. $130,000. Cattle and machinery may also be purchased. Kenneth & Donald Myers, Scipio Center, N. Y.

FOR SALE: LARGE stocked dairy farm. Modern furnished home, etc. Spring catalog. Miller Real Estate, Bath, N. Y.

BUILDINGS

STEEL BUILDINGS, Shenango, America's finest and most economical building. Engineered to suit your specific needs. Up to 60 feet clear span, 20% more usable space. Serving both agriculture and industry. For free information write or call M. W. Lidstone, P. O. Box 92, Southfield, Massachusetts, Telephone Sheffield, Mass. 229-3139.

FARMS WANTED

TO HELP YOU SELL Your Farm. It won't be long before farm buyers, like spring, will be popping out all over the place. With all winter to dream about the perfect hideaway or an A-1 income producer, they'll be ripe for a good proposition. Tell them about your farm through the advertising columns of The New York Times. It's the source prospects turn to first because it has more to choose from—more farm advertising than any other New York newspaper. Good time to advertise is between March 4 and April 8, when farms and acreage will be featured in The New York Times Classified Pages. Your announcement will reach approximately 550,000 families on weekdays, over 900,000 on Sundays. For full details, see your local real estate broker. Or, if you wish, write the New York Times direct. We'll help you write your ad from facts you supply, send you proofs and quote costs. Write: The New York Times, Farms & Acreage Desk #101, Classified Advertising Department, Times Square, New York 36, N. Y.

TO PURCHASE A FARM in New Hampshire. Fifty cow stocked and equipped farm. Mail description, price. Lock Box 97, Contoocook, N. H.

BUSINESS OPPORTUNITIES

FRUIT AND VEGETABLE stand that takes in $3,000.00 weekly. Right in the middle of six acre vegetable garden on main highway, (Route #13). Back of this is another 15 acre cash crop garden and 20 acres of prime producing apples, pears and peaches from earliest to latest varieties. Owner retiring. Albert Violette, Lunenburg, Mass.

FOR SALE, CHRISTMAS Tree Plantation. 300 acres, 5,000 Scotch Pine ready for fall market, terms. E. Herrick, Margaretville, N. Y. Delaware County

MINNEAPOLIS-MOLINE Farm Equipment. A full line of tractors, combines, hay tools, corn pickers, farm implements and irrigation engines. Territory adequately serviced from nearby stocks of both complete goods and parts. A few choice dealer territories open. Write or contact: Dept. 25, Minneapolis-Moline Division, Hopkins, Minnesota.

MAIN STREET LOCATION, active village, store building equipped for meats, groceries, 3 apartments. $16,500. Down payment $6,500. Grocery and meat market, fine business, corner location, $22,000. K. M. LeMieux, Arcade, N. Y.

HOTEL FOR SALE—Package license, living quarters, all equipment. Immediate possession. Leigh Huff, Greenwood, N. Y.

FOR SALE: TWO sixteen thousand egg Buckeye Incubators. Write Hamblin Hatchery, Wilson, N. Y.

NEED CASH? EARN it raising fishworms! Write: Oakhaven-6, Cedar Hill, Texas.

FOR RENT — PROFITABLE roadside stand with cold storage and orchards. Box 514-FB, American Agriculturist, Ithaca, N. Y.

PLANTS

CERTIFIED TOMATO, pepper, cabbage, onions, eggplants, broccoli, lettuce, cauliflower, beets, collards and sweet potato plants. Field grown, healthy, vigorous, full bearing plants. Write for free catalogue-price list. Satisfaction guaranteed. Evans Plant Company, Dept. 5, Ty Ty, Georgia.

STRAWBERRY—RED, BLACK, Purple raspberry and blackberry plants. Guaranteed to grow. Eureka Plant Farm, Hastings, N. Y.

STRAWBERRY RASPBERRY, Blueberry, Blackberry. Latest and best including Frontenac, Midway Cyclone, Ozark Beauty, Everbearing. Write for free catalog describing 70 small fruit varieties. Walter K. Morss & Son, Bradford, Mass.

WRITE FOR NEW Catalogue. Complete line vegetable and flower plants. Sunsweet Plant Farms, Chula, Georgia.

FREE VEGETABLE Plant Catalog. Tomato, pepper, onion, cabbage, lettuce, broccoli, cauliflower, and eggplant. Wide selection of leading hybrid and standard varieties. Fifty-six years experience supplying home and commercial gardeners. Write today. Piedmont Plant Co., Dept. 2023, Albany, Georgia.

STRAWBERRY AND RASPBERRY Plants. All varieties. Free catalog. Special discounts on large orders. Free plants. Sprout Plant Farm, Waverly, New York.

500 ASSORTED SWEET Onion plants $2 postpaid fresh from Texas Onion Plant Company, "Home of the Sweet Onion." Farmersville, Texas.

ONION PLANTS, CHOICE Select. Crystal Wax, Yellow Bermuda, White and Yellow Sweet Spanish: 3 bunches, $1.95; 5 bunches, $2.45; 10 bunches, $3.85; 20 bunches, $5.95; 30 bunches, $7.50, postpaid; crate (60 bunches) $10.95, prepaid. Austin Plant Company, Box 853, Austin, Texas.

SEEDS

GOURD SEED. Best seed in New England regards to range of color, pattern, shape. Results of seed selection for 18 years. Wholesale, retail. Ward Stark, Stormville, N. Y.

FLOWERS & BULBS

AFRICAN VIOLETS—Old and new; leaves 10¢ each. Postage 25¢. Marjorie Card, Edmeston, New York.

DAHLIAS, TWENTY assorted $3.00 postpaid. George Mostert, Delhi, New York.

GLADIOLUS BULBS mixed colors $1.00 hundred. Walter Green, Goshen, N. Y.

FOODS & FRUITS

HOMEMADE NEW ENGLAND Horseradish. Grown on the farm! Pints $1.00. Roots $.75 pound. Sets $1.00 dozen. Welles Farm, Wapping, Conn.

PEPPER, SASSAFRAS, Cinnamon, Sage, Poppyseed $1.25 pound. Peerless, 538AA Centralpark, Chicago 24.

CEDAR POSTS

CEDAR POSTS, ALL SIZES. Pressure treated or cedar poles for barns and sheds. Rustic fencing. M. D. Snell & Son, Marcellus, New York. OR-9 3121. Closed Sunday.

NURSERY STOCK

COLORADO BLUE SPRUCE, 25 for $3.75 postpaid, 10-14 inch, Heavy root systems. Free catalog and Planting Guide. Suncrest Nurseries, Box 5-J, Homer City, Pa.

EVERGREEN PLANTING STOCK for reforesting. Christmas trees, windbreaks, ornamentals. Growers, quality stock, reasonable prices. Free catalog and Planting Guide. Suncrest Nurseries, Box 5-J, Homer City, Pa.

BABY EVERGREEN SEEDLINGS, transplants. List free. Neuner's Nursery, Eicher Road Pittsburgh 2, Pa.

SALE — HARDY TREE Farming—Christmas tree forests — seedlings. Unadilla Nursery, Johnson City, N. Y.

CHRISTMAS TREE Seedlings—Write for free price list and Christmas tree record for recording your tree planting data. Raymond Nelson, Christmas Tree Nursery, Dept. A, DuBois, Pa.

SHRUB-TREE SEEDS (200 varieties) Trial package 25 different varieties, mixed, $1.00. Tree seedlings—nut, shade, timber, ornamental and evergreen. Baby evergreens. Fruit trees. Catalog. Mellinger's, North Lima 42, Ohio.

SPECIAL OFFER—1000 healthy 3 year 8-16 inch Austrian Pine, French, Spanish, Austrian Scotch Pine or Norway Spruce $25.00. Colo. Blue, 6-10 inch $35.00. Free Planting Guide and price list. Hill Crest Nursery, Box 723A, Indiana, Pa.

CHRISTMAS TREE Seedlings—Grow trees for profit, for future timber returns, for a family hobby, for beauty on idle farm land. Bluegreen Scotch pine from our own select seed. Write for price list of quality pine, fir, spruce and ornamental evergreens. Paint Creek Nurseries, Shippenville, Pennsylvania.

EVERGREEN SEEDLINGS and Transplants for Christmas Trees, windbreaks, ornamentals, etc. Pines, spruces and firs included. Send for free price list with "specials" and complete descriptions. Buy 10, 100 or 1000's, low as $9.90 per 1,000 for 3 year seedlings, at nursery. Or come to nursery. Write B. Cronk, Genesee Valley Nursery, Belmont, New York.

CULTIVATED BLUEBERRY Bushes, six 18-30" $5.95; ten 10-18" $7.50, postpaid. Morningbrook, Monson, Mass.

GROW GIANT-SIZE Apples, peaches, pears on sensational Stark Dwarf trees. As many as 9 trees in space 20 ft. square. Bushels of delicious fruit for table, freezing, canning, profit. Free catalog of Stark-Burbank Fruit Trees, Dwarf-Fruit Trees, shrubs, shade trees, vines, roses, etc. Stark Bro's., Dept. 30432, Louisiana, Missouri.

BLUEBERRIES 2/3 FT. Bearing Age $1.15. Rhubarb, trees, shrubs. Free catalog. Commonfields Nursery, Ipswich, Mass.

EVERGREEN SEEDLINGS and transplants in leading varieties for Christmas tree production. Assorted ornamentals. Free price list and planting guide. Flickingers' Nursery, Sagamore, Penna.

STRAWBERRIES

STRAWBERRY PLANTS: Certified, fresh dug. Catskill, Empire, Sparkle, Robinson, Fairfax, Premier, Pocohontas, Midway $3.25 per hundred postpaid. Everbearing Superfection $4.75 per hundred postpaid. Write for quantity prices. Braman Bros., Penfield, New York.

CERTIFIED STRAWBERRY Plants: Armore, Robinson, Catskill, Premier, Dunlap—$3.25 — 100; Superfection Everbearing $4.25 — 100. Raspberries $8.50—100, postpaid. Perkins Berry Farm, R. D. 1, Box 230, Hudson Falls, N. Y.

GARDEN SUPPLIES

PROTECT YOUR BERRY Crops . . . Vegetables. Cheesecloth 100 yards by 39", convenient 10-yard lengths $7.50 prepaid. 50% less mill price. Joseph Hein, 120F Eton Road, Thornwood, N. Y

MAPLE SYRUP

PURE VERMONT MAPLE Syrup—fancy grade $5.50 per gallon plus postage. Order now for 1962 crop. James F. Burbank, Chelsea, Vt.

MAPLE SYRUP, BUTTER, fancy candies. Reasonable prices. Elliotts, New Kingston, New York.

SIGNS

NO HUNTING SIGNS any material, lowest prices. Free sample—catalog: Signs, 54 Hamilton, Auburn, New York. Dept. G.

DURABLE PLASTIC Posted Land Signs. Free samples. Minuteman, Stanfordville, New York.

NO TRESPASSING SIGNS. Free samples, prices Cassel, 65 Cottage, Middletown, N. Y.

EARTHWORMS

$400.00 MONTH raising giant fishworms. Soilless method or compost. Charlie Morgan, Box 1160, Bushnell, Florida.

FREE PICTURE folder, "How to Make $3,000 Yearly, Sparetime. Raising Earthworms!" Oakhaven 5, Cedar Hill, Texas.

STAMPS & COINS

105 DISSIMILAR BRITISH Colony Stamps. 10¢. Approvals. Crown Stamp Company, Virgil 315, Ontario.

STAMP JUNGLE INCLUDING Zabu, Kookaburra, Koalabear, Kangaroo, Rhinoceros. 10¢ Approvals. Crown Stamp Company, Virgil 315 Ontario.

25 DIFFERENT LARGE American Commemoratives 10¢ with approvals. Linstamp, St. Catharines 115, Ontario.

107 DISTINCT BRITISH Colonial stamps. 10¢. Approval, Linstamp, St. Catharines 415, Ont.

103 DIVERSIFIED BRITISH Empire stamps, 10¢. Approvals. Niagara Stamps, St. Catharines 515, Ontario.

307 WORLDWIDE DIFFERENT stamps only 25¢. Approvals. Niagara Stamps, St. Catharines 215, Ontario.

OLD COINS WANTED. Illustrated catalog 25¢. Hutchinson's, Box 6256, Philadelphia, Penna.

SILVER DOLLAR $1.40; 5 V-Nickels $1.00; Morgan Half-Dollar 85¢; Indianhead Cent 25¢; Barber Dime 10¢; List. Coins wanted! Nelson, 346 A. Rye, N. Y.

NEW & USED EQUIPMENT

AUTOMATION SPECIALISTS serving the better dairymen of the Northeast for over 15 years, milking systems, bulk milk tanks and side opening coolers, barn cleaners, silo unloaders, silos, metal buildings. Livestock taken in trade and also livestock for sale. Nold Farm Supply, Rome New York.

WANTED — ALLIS-CHALMERS Roto Balers. New or used. Give price and condition. Brice Creesy, Andover, Ohio, Phone 3319.

NEW MASSEY-FERGUSON and Cockshutt equipment. Also largest selection of good used tractors and machinery in Northern New York State. Tractors from $65.00 up. Write or phone. Wanted AC balers, will buy or trade. Will deliver. Phone Lowville 85; Ingersoll's Farm Supply, Martinsburg, New York.

WANTED: DEALERS to handle line of bunk feeders or self-unloading wagon boxes, platform and grain boxes, wagons, spreaders, etc. Address inquiries to Box 514-OC, American Agriculturist, Ithaca, N. Y.

FOR SALE—FARM machinery and tractors, construction and garden equipment and autos and trucks. Write or phone your needs to Phil Gardiner Ten Acres Machinery, Mullica Hill, N. J., phone Gridley 8-6291, or visit us. Baler twine—money back guarantee. $5.95 per bale. Buying and selling recent model tractors and jeeps.

BUILD 350 AMPERE Farm Welder using aircraft generator, plans 25¢. Free catalog, welders, kits, surplus items. Dunbar, Minneapolis 8, Minnesota.

8 TON TRUCK HOIST $198.50—$50.00 down. Also 7 other models 2 to 22 ton. Can use agents. Dunbar, Minneapolis 8, Minnesota.

WANTED: LARGE steam farm tractor. Write Steve Davis, Star Route, West Winfield, N. Y.

WANTED: 6 OR 8 HP steam engine. O. B. Flumerfelt, Great Meadows, N. J.

ONE USED BEAN Royal 15 triplex pump 15 gallons per minute at 600 pounds pressure, 300 gallon tank power take-off. Excellent condition. $400.00. Cub tractor with hand lift, cub mower and plow. Good condition. $650.00. Louis LaCivita, 301 Moose Hill Rd., E. Walpole, Mass. MO-8-0316.

ANNUAL EQUIPMENT AUCTION — Salem Farm Supply, Saturday, March 3rd—Rain or Shine—9:30 AM to 4:00 PM. Here's the one you've been waiting for. A partial listing of tractors and equipment follows. They're new, demonstrated, reconditioned, or used. International Tractors: F450, F350 Diesel, 1300, F230, Super M, Super MTA, two M's, four H's, two F20's, an F30, Cub, an A, BN, C, Super C, W4, T340 crawler w/bullgrader, 1340 tractor w/backhoe and loader, TD14 w/dozer and winch. Also: Case SC, Chalmers WD, two John Deere A's, two B's, an MT, 40 crawler w/loader, 420 crawler w/blade, Massey Harris 20, 8N Ford, Wards Custom, Cat 22, garden tractor and others. Balers: three McCormick 45's, two McCormick 50T's, two New Holland 77's, NH 66, Case NT. Choppers: McCormick 20C, four Case, one Cockshutt, one Oliver, two New Holland, two Allis Chalmers, John Deere, Papee, Gehl, Papee flail chopper. Blowers: Case, Gehl, Papee, International, New Idea corn picker, International, Cunningham & New Holland conditioners, twenty mowers—various makes and models including fast hitch, several used side rakes, disc harrows, spring tooth harrows, cultivators, elevators, loaders etc., and various odds and ends. Terms—cash or your good check. Lunch and trucking facilities. March 3rd, 1962—9:30 AM to 4:00 PM. Salem Farm Supply, Route 22, Salem, New York. Glenn and Stanley McLenithan, Auctioneers.

WANTED: USED COMBINE with bin. Reasonably priced. John Greseck, Richfield Springs, New York.

CATERPILLAR D4 Std. tread, angle blade and winch $3795. Caterpillar D2-W/winch $1795. D2 w/blade, PTO and pulley $2995 & $2750. 3 Oliver OC4 w/loaders, 2-OC3 w/loaders. OC4 w/winch and blade, OC3 w/winch and blade $1795, 2-OC6 w/blades, $3495, 3-OC6-68 muck tractors, OC9 w/loader, OC12 dozer, $5995. 3 AG6 dozers $1650 up, 3 BG's, 1-BG w/Heil blade. HG68, clean, $750. Cletrac E w/cont. F226 motor and starter, $695. New Allis Chalmers H3 crawlers in stock, dozers, loaders, winches. 98 used, reconditioned balers $50, up. All makes and models. New Flail Choppers $650. 50 used rakes, 40 used spreaders. Don Howard, Canandaigua, N. Y.

FOR SALE: VERMONT evaporator, 100 16 quart buckets. Shaws, Swift River, Mass.

UNIVERSAL 8 STALL walk-thru milk parlor—pipeline, complete. Sell or trade. Warren Blowers, Geneva, N. Y. LY-6-2308.

3 H.P. HOEING MACHINE. No other like it Uproots all weeds in row and between plants. Very simple. Very sturdy. Women operate easily. Also tills. Depth adjustable 0-6". Self propelled. Buy direct at discount, 30 day trial. One year warranty. Write Autohoe, West De Pere 9, Wisconsin.

OLIVER DIESEL OC6, 42" gauge, good condition. Oliver Diesel OC6, 68" gauge with 3 point hitch, excellent condition. Rice Farms, Jersey Shore, Pa. 398-1391.

FARMALL AND J. D. OWNERS update your tractor with a Dip Stick install in 3 minutes, no holes to drill, satisfaction guaranteed. Price $2.00. Heiken Products, Atlantic, Iowa.

BOOKS

PROPHET ELIJAH COMING, preparing way for Christ. Wonderful Bible prophecies. Convincing Bible evidence. Free book. A. Megiddo Mission, Rochester 19, New York.

LUCKY MIDGET BIBLE 50¢. Free variety circulars. Box 514-ZF, American Agriculturist, Ithaca, N. Y.

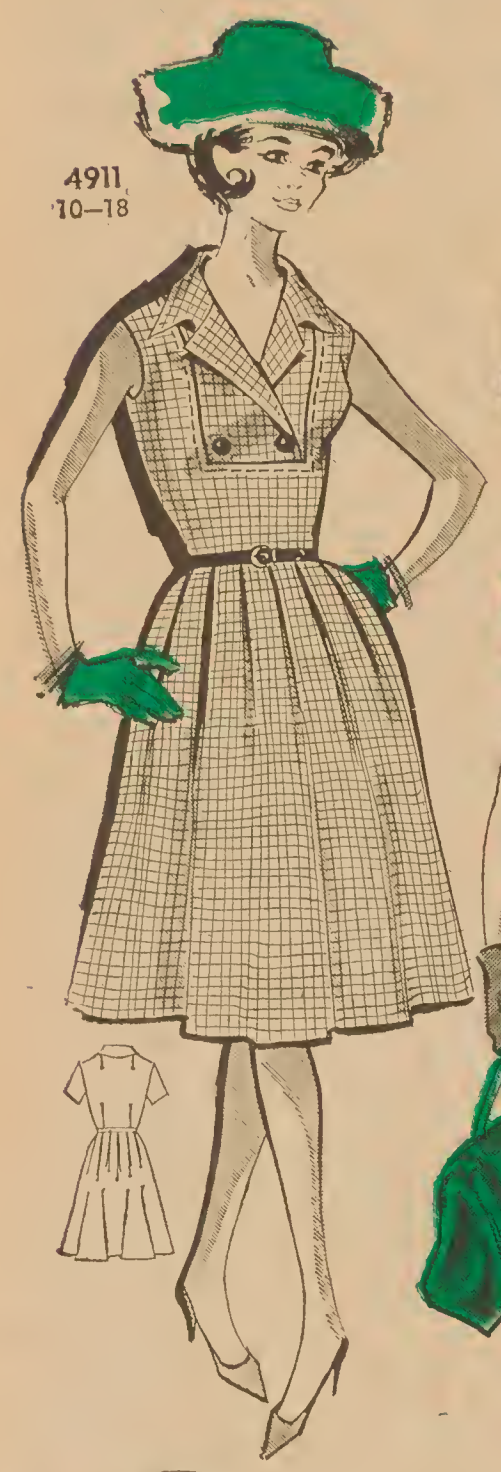
TARPAULINS

CANVAS TARPAULINS—Direct from factory —nylon reinforced eyelets, medium weight. Cut size—7x9 feet, $5.67; 8x12 feet, $8.64; 12x14 feet, $15.12. Write for complete list of sizes and samples. Our 67th year. Eureka Tent & Awning Co., Inc., Binghamton, New York.

ADDITIONAL CLASSIFIED ADS

(Continued on Page 56)

SEW A SPRING WARDROBE





4911. Pleated casual with deep front yoke, convertible collar. Neat in checked gingham, drip-dry cotton. Printed Pattern in Misses' Sizes 10, 12, 14, 16, 18. 35 cents.

9445. Square-neck sheath, cover jacket. Smart in slubbed cotton, linen, shantung. Printed Pattern in Women's Sizes 36, 38, 40, 42, 44, 46, 48, 50, 52. 35 cents.

9332. At ease at work or play in a casual culotte dress. Sew it in any sturdy cotton. Printed Pattern in Half Sizes 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

9494. Sew this pretty duo in spring-to-summer cotton or silk. Match or mix dress and jacket. Printed Pattern in Misses' Sizes 10, 12, 14, 16, 18. 35 cents.

9353. Five for fun and sun — poncho, shorts, pedal pushers, Bermudas, sun top. Sturdy cottons for these. Printed Pattern in Jr. Miss Sizes 9, 11, 13, 15, 17. 35 cents.

9417. Dress is a pleated whirler, little shrug a handy matchmate. Gay cotton is the perfect fabric. Printed Pattern in Child's Sizes 2, 4, 6, 8, 10. 35 cents.

4663. Shapely sheath with yoked midriff, scooped neck. Cotton, silk, shantung—all suitable fabrics. Printed Pattern in Misses' Sizes 10, 12, 14, 16, 18. 35 cents.

9418. Spring to September casual. Practical in wash-and-wear cotton. Printed Pattern in Half Sizes 14½, 16½, 18½, 20½, 22½, 24½. 50 cents.

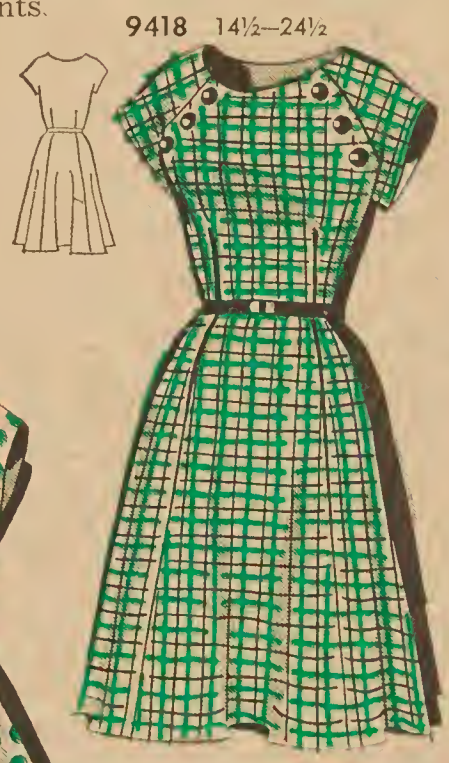
4845. A wonderful shirt-dress to sew with slim skirt or gored. Slim dress is lovely in linen; gored, in a cotton blend. Printed Pattern in Half Sizes 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

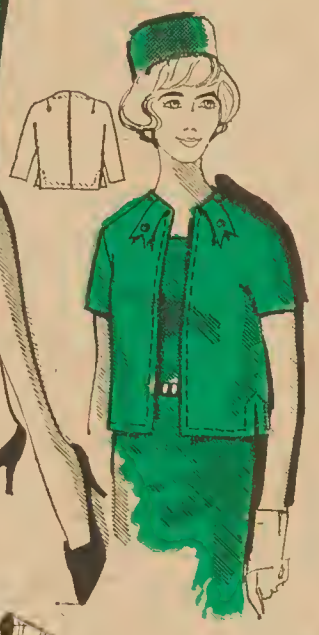
4840. Summertime dress for daughter. Note the straight fall of pleats from yoke. Gay in a coin-dot cotton. Printed Pattern in Girls' Sizes 6, 8, 10, 12, 14. 35 cents.

4746. Jacket-dress is doubly wonderful; equally smart in silk or cotton print. Printed Pattern in Half Sizes 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

4784. Trio of jiffy-cut blouses to whip up in bright cottons. Printed Pattern in Misses' Sizes 12, 14, 16, 18, 20. 35 cents.











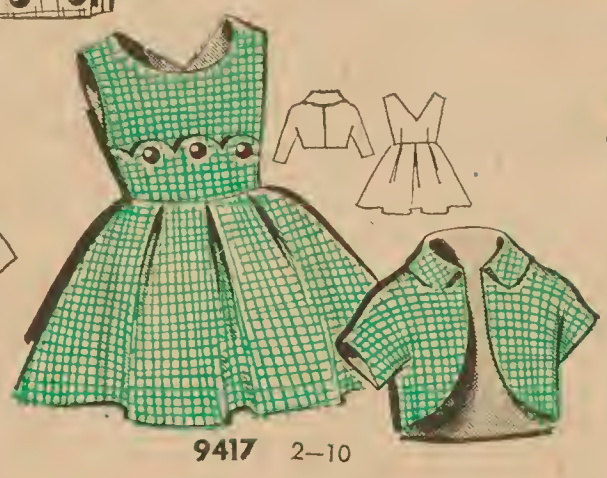














PATTERN 9418 is FIFTY CENTS. All other patterns are THIRTY-FIVE CENTS each. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Department, Box 42, Old Chelsea Station, New York 11, N. Y. Please write name, address, pattern size and numbers clearly. Send 35c for our color Catalog of Spring-Summer Printed Patterns. See more than 100 styles for all sizes, all occasions.

What's Your Hobby?

Hobby Letters From Our Readers

Covered Bridges

My hobby is covered bridges. I have several scrap books, of material from all parts of the United States and Canada, and I have over a hundred poems, pictures, post cards, clippings, and snapshots. I would like information about the covered bridge that used to be at Amsterdam, New York.—*Mrs. H. W. Monroe, R.D. 1, Greenwich, N. Y.*

New Use!

I have an inexpensive hobby. I save paper napkins served me at tea parties, etc., (not using them). When I have enough, I Scotch tape them together with pretty contrasting colored tape. These cloths, big enough for card table covers, make nice prizes. — *Mrs. George Kavanaugh, 172 5th St. Greenport, N. Y.*

Parker Family History

I am compiling a genealogical history of the Parker family. Genealogy is a very nice hobby, and also it is a good way to make young folks aware of all that their forebears did in the past.

I have prepared two form letters that I send to anyone by the name of Parker or who belongs to an allied family. One of these is a blank ancestral chart to be filled in if possible. The first three volumes of my history will contain the descendants of Capt. James and Abraham Parker, two of the five brothers who emigrated to New England in 1630, and of Dea Thomas Parker, their cousin, of Newbury, Mass.

I also intend to publish a separate volume with all of the families of the name of Parker in it. Whenever I hear of anyone named Parker, or see an item about a Parker family in a newspaper, I write to them. I also collect legends, historic events, or in fact anything that concerns a Parker.

I am interested in finding out about cemeteries in which Parkers are buried. This includes old and abandoned cemeteries or ones that were family plots on farms, as well as cemeteries that are being used today.

This is a time-consuming hobby, but a fascinating one. — *Florence Parker, 2607 North 8th St., Phoenix, Arizona*

Artificial Flowers

My hobby is making artificial flowers. I have been making them for years, first from crepe paper and then in the last few years from wood fibre. Two years ago I made 14 orchid corsages for my lodge staff. Last fall I took the blue ribbon for my wood fibre roses at the State Fair.

Making flowers is the way I relax when tired or nervous, and it's fun to surprise my friends with them. — *Margaret LaMorder, Box 2, Fabius, N. Y.*

Mexican Burros

One of my hobbies is raising burros, sometimes called Mexican burros, donkeys, or mountain canaries. They are very gentle animals if not abused and do not require too much feed. Hay in winter, and grass in spring and summer, seems to satisfy them. They fit in with the weather, too. All that is recommended is a three-sided shed, open on the south side.

At present we have two—a mother named Pokey, and her 15-month-old colt Peppy, shown in picture with my daughter Melissa. I use the burros in connection with my other hobby of clowning, which you reported in your hobby column last year. We enjoy these animals and are always encouraging other folks to get some.—*Walt WOBO Savage, R. 1, Yardville, New Jersey*



Two - year - old Melissa Savage of Yardville, N. J., with Peppy, one of her father's Mexican burros.



GARDEN OUTLINE

By Jane Morrison

Seed catalogues announce another spring,
Perfection, highly colored, on each page.
Ought she to try more pansies? Or a fling
With that new columbine? Perhaps engage
In combat once again with mignonette,
The stubborn thing! With her renowned green thumb
She'd coax it to be docile and grow yet,
Quite ladylike, by prize delphinium.

She takes her garden outline from its shelf,
And summer memories bloom. (Sweet william clear
And rosy next white phlox.) She feels herself
Coming alive with spring's excitement near.
The order blanks lie ready for her need,
And so she dreams above her garden charts,
Thinking how beauty dwells in one brown seed,
And in one word, all joy of human hearts.

History Comes Alive . . . on the American Agriculturist

HOLIDAY IN EUROPE

May 9 - June 19, 1962

under the direction of Travel Service Bureau



The glories of the past and the excitement of the present plus the traditions, the scenic beauty and native charm of Europe are blended in this tour which takes you through:

FRANCE — Paris, the Invalides, the Eiffel Tower, Palais de Chaillot, Arc de Triomphe, the Louvre, Luxembourg Palace, Notre Dame, Hotel de Ville, the Butte of Montmartre, Basilica of the Sacre Coeur.

THE RIVIERA — Cannes, the perfume center at Grasse, Nice, Monte Carlo.

ITALY—The Leaning Tower and Baptistry at Pisa, Rome, the Forum, Colosseum, acoustically-perfect Pantheon, The Vatican, Fountains of Tivoli, Sorrento, Amalfi, Isle of Capri, Blue Grotto, Pompeii, Mt. Vesuvius, Naples, Florence, Venice, a Merano glass factory, the Dolomites.

AUSTRIA—Brenner Pass, the River Inn Valley, Innsbruck.

SWITZERLAND — The Swiss Alps, (and a side trip to the Principality of Liechtenstein), Lake Lucerne, the city of Lucerne with its centuries-old wooden covered bridge.

GERMANY — The Black Forest, Baden Baden, Heidelberg, Rudeshein, The Rhine, Koblenz, Cologne, Dusseldorf.

HOLLAND — Amsterdam, giant flower auction hall at Aalsmeer, Volendam, the Hague, Peace Palace, Delft, Rotterdam.

ENGLAND — Oxford, Stratford-on-Avon, London, Westminster Abbey, Trafalgar Square, Piccadilly, St. George's Chapel, Windsor, Henley-on-Thames, Salisbury, Southampton.

Enjoy this fascinating care-free tour that brings places and names you've read about to life. TSB experts take special care that you'll have no travel worries throughout the tour. So plan now to travel with a friendly group of American Agriculturist folks this spring and see Europe at its best. For more detailed itinerary and full information on this all-expense tour, mail coupon today.

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FREE TRAVEL BOOKLET FORM

Please rush me free booklet and full information on the all-expense American Agriculturist—TSB HOLIDAY IN EUROPE, May 9 - June 19.

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NEW FLOWERS *for Your Garden*

By NENETZIN R. WHITE

EACH year I try to plant at least one or two of the new selections. In metropolitan areas you can probably buy the plants in flats, but in the rural areas you will have to start your own seed. This can be done now for a very small investment, and you should have wondrous results.

There are four All-America annual selections this year, and of these I think **Dark Opal** (the ornamental sweet basil) will be my favorite. This is undoubtedly because I have an herb garden—use it, and love it. However, Dark Opal doesn't need to be confined to the herb garden. It is a bushy, shapely plant about 18 inches in height, with metallic purple foliage and many small purple and white flower spikes. This should make a dandy border or group planting, and the fragrant purple foliage should be delightful for flower arrangements. Don't forget to use snips of the foliage when serving tomatoes in any form. I also use a bit in pot roasts, stews, and occasionally in salads. How's that! You can enjoy Dark Opal's beauty and its taste too.

Two New Zinnias

We always seem to find at least one zinnia on the award winner list, and this year there are two. This makes good sense to me, for zinnias are easy and most rewarding to grow. I believe that a beginner will get more from a package of zinnia seeds than from almost anything else. From one packet started indoors or sown outside after the soil is warm, you should have one or two large groups of full colorful plants that just seem to arrange themselves in any container. One of the winners this year is **Red Man**—huge double flowers (six inches across) on a semi-dwarf plant about two feet high. This is a rich red zinnia of the giant cactus variety and should make you a proud owner.

The second zinnia selection this year is **Old Mexico.** This surpasses Persian Carpet by being strikingly bicolor—three inch double flowers of a mahogany hue with lively golden tips. Its 18- to 24-inch height is ideal for show and cutting.

A new 6 to 8-inch AAS baby is **Bravo,** a scarlet red annual dianthus or "pink." This brilliant color is new and the plant will lend itself to border groups, edgings, or pots and boxes. Be sure to include this or other dwarfs in your plantings, because the taller plants need groups or borders of facing.

Mums for Fall Color

Chrysanthemums of the large flowering type have usually been a florist item, but in the past few years more and more are being developed that have large, wind-resistant flowers. Some of these also blossom early so that frost won't wipe out your hopes. **Flameburst** is a '62 winner in an exciting new coral flame color, with just a hint of yellow toward the petal bases. It is a decorative mum with rich, fantastic flowers 3½ inches across, on plants 24 to 30 inches tall. This outstanding mum starts to bloom early and lasts through frosts. It's one that we will surely grow this year.

Knockout, the other All-America mum selection, is a low, spreading rose-pink plant, just covered with flowers. This is so symmetrical that it could be used as an edging of twelve inches or less. The All-America Mum Committee has published an article called "A Garden For a Dollar." They maintain that one of these plants will give you a large bushy flowering plant the first year. Then the next year, by divisions or cuttings, you can have a whole yard full of beautiful fall color. Another thing, these mums last as cut flowers for at **least** three weeks.

Mums are purchased as rooted cuttings in the spring, or as potted plants in the fall. Do not be afraid to try different colors, for they are almost always harmonious. Last fall we had a large field full of mums, and even I (who occasionally feel that some flower colors clash) couldn't find a discordant note. Sad to relate, with last year's wet spring, I never got any mum plants in my own borders, a mistake I will rectify this year. However, the field of mums was close to our parking lot, so I admired and cut with abandon.

Be sure to try the different shapes —small buttons, pom-poms, singles, semi-doubles, spiders, spoons, cactus-flowered, regular, and incurved double decorative types. All are lovely! Try to buy locally where your grower will have the right blossoming mums for your area, or look up the flowering dates yourself.

Press Before Mailing

Occasionally some of you send a few leaves or flowers for identification. This is good. Keep it up, and I'll continue to try to help you. Do not wrap these in waxed paper, however, for they mold and disintegrate. Press and dry all leaves and flowers before sending them to anyone. Put them between blotters, newspapers, or paper towels, and press for at least a day. A pile of heavy books will do a good job. Then, with these send a good color description.



DARK OPAL: Ornamental Sweet Basil with metallic purple foliage. Very effective in flower arrangements.

Photos: All-America Selections

RED MAN: Large rich red zinnia of the cactus type. A new flower you'll be proud to have in your garden!





↑ KNOCKOUT: This bushy mum with rose-pink flowers is nice for bouquets and is low enough to be used in borders.

→ FLAMEBURST: Large-flowered mum in a gorgeous coral color.





Eggs are one of this month's plentiful foods. Pictured above are Eggs Florentine and Creme Caramel Custard. Photo: Cunningham, Inc.

MARCH IS EGG MONTH

By Alberta D. Shackelton

MARCH IS TRADITIONALLY "Egg Month," and this year with unlimited numbers of eggs available, it's a good time to check and see if you are making the most of them. Serve them often to your family, at breakfast in preferred ways and as omelets, souffles, fondues, casseroles, and the like for other meals. Eggs are full of nutrients, two or three eggs providing about the same amount of protein as in one serving of meat. They are good sources of iron, vitamin A, and riboflavin, too.

Eggs are featured in the following recipes for easy main-course dishes and desserts.

BAKED DEVILED EGGS

6 hard cooked eggs
2 cups (well seasoned) hot medium white sauce (add ¼ teaspoon dry mustard)
¼ cup grated medium sharp cheese
Paprika

Cut eggs in half lengthwise and remove yolks. Mash yolks with a fork and combine with salt and pepper, mustard, paprika, salad dressing and vinegar to your taste for a deviled mixture. Pile yolk mixture into the egg white halves and arrange, yolks up, in a lightly greased shallow oblong pan about 10 x 6 or 7 inches. Add cheese to hot cream sauce and stir until melted. Pour sauce around the eggs and sprinkle with paprika. Bake in a moderate oven (350°) about 20 minutes. Serves 4.

EGGS FLORENTINE

1 pound fresh OR 2 10-ounce packages frozen spinach
4 hard cooked eggs, cut in halves
1 cup well seasoned cream sauce
½ cup dry bread or cracker crumbs
2 tablespoons butter melted
2 tablespoons commercially grated cheese

Cook spinach until just tender, drain, and season to taste with salt and pepper. Chop finely and spread in a lightly greased 8-inch baking dish. Arrange egg halves on top of spinach. Cover with cream sauce. Combine crumbs, butter, and cheese, and sprinkle over eggs. Bake in a moderate oven (350°) about 20 minutes. Serves 4.

SHIRRED EGGS AND MUSHROOMS

1 pound fresh mushrooms cleaned and sliced OR
1 large can sliced mushrooms
2 tablespoons butter
Salt and pepper
1 teaspoon flour
1 cup rich milk or light cream
4 or 8 eggs

Saute mushrooms in the butter until light brown. Stir in the flour and rich milk or cream, and cook until slightly thickened. Divide mushroom mixture into four greased individual shallow serving dishes or custard cups. Break one or two eggs into each dish and sprinkle with salt and pepper. Bake in a moderate oven (325°) about 8 to 10 minutes or until eggs are of the desirable doneness. Serve in same dishes. Serves 4.

CHIFFON PIE

1 tablespoon unflavored gelatine
¼ cup cold milk
1 cup scalded milk
½ cup sugar
3 egg yolks
3 egg whites
1 to 2 teaspoons flavoring: almond or vanilla or both, or other
Your favorite 9-inch baked pastry shell or crumb shell

Soften gelatine in the cold milk. Combine egg yolks and sugar, and add scalded milk gradually while stirring. Cook egg mixture over low heat until it coats a spoon or is slightly thickened. Add softened gelatine and flavoring and chill until slightly congealed. Fold in the stiffly beaten egg whites and pour into prepared shell. Chill thoroughly. When ready to serve, cover with sweetened and flavored whipped cream and sprinkle with slivered toasted almonds, macaroon or cereal crumbs, shaved chocolate, etc.

Chocolate Chiffon Pie: Melt 1 to 2 squares unsweetened chocolate or 1 cup chocolate chips in the hot milk and proceed as for plain chiffon pie. For chocolate peppermint pie, flavor with 2 drops oil of peppermint and

(Continued on Page 57)

Gold Ribbon Winner at Illinois State Fair
gives you her recipe for

Roanoke Rolls



"This recipe has been a favorite for years," says Miss Olivia Kempf of Roanoke, Illinois. "And last year it won me the Gold Ribbon for the best yeast baking at Illinois' State Fair. I hope you'll try my recipe soon. And be sure to use Fleischmann's Active Dry Yeast. It's so dependable, and always fast rising. I know you'll have good luck with Fleischmann's Yeast."

Roanoke Rolls *(Makes about 5 dozen)*

1 cup milk
½ cup sugar
1 tablespoon salt
6 tablespoons Fleischmann's Margarine
1 cup very warm water
2 packages or cakes Fleischmann's Yeast, Active dry or compressed
3 eggs, beaten
9 cups sifted flour (about)

Scald milk; stir in sugar, salt, and Fleischmann's Margarine. Cool to lukewarm. Measure very warm water into large bowl. Sprinkle or crumble in Fleischmann's Yeast; stir until dissolved. Add lukewarm milk mixture, beaten eggs, and half the flour; stir until blended. Beat until smooth. Add remaining flour until dough cleans sides of bowl. Turn out onto lightly floured board. Knead until smooth and elastic, about 10 minutes. Place in greased bowl, turning to grease all sides. Cover. Let rise in warm place, free from draft, until doubled in bulk, about 1 hour 15 minutes. Divide dough in half. Roll out each half about ⅜-inch thick. Cut into rounds with 2½-inch biscuit cutter. Crease heavily through center with dull edge of knife; brush lightly with melted margarine. Fold over so edges just meet; seal. Place close together with rolls touching in greased shallow pans. Cover. Let rise in warm place, free from draft, until doubled in bulk, about 1 hour. Bake at 350° F. (mod.) about 20 to 25 minutes until golden brown. Remove from oven. Brush tops with melted margarine immediately.



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(Continued from Page 51)

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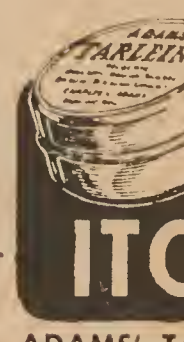
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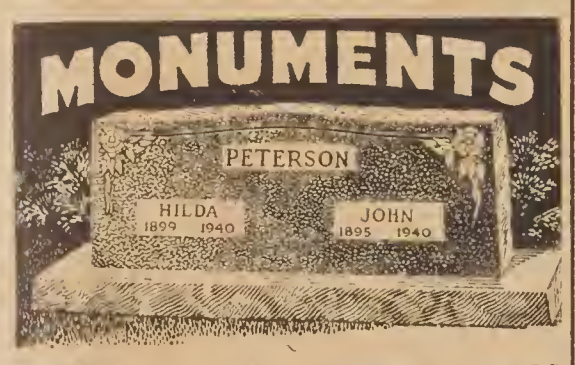
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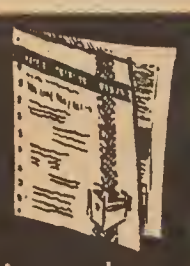
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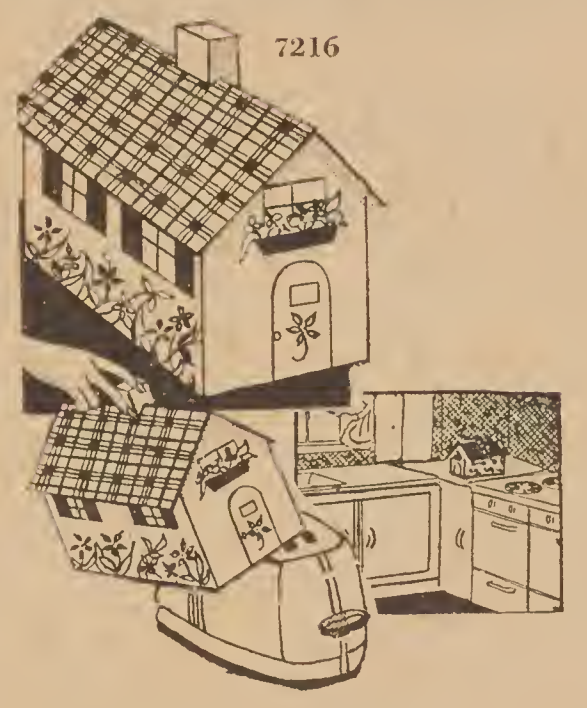
CATALOG
Over 200 Designs
Needlecraft Patterns

7174

Order Needlecraft Baak taday. 25 cents.

7334. Frame these embroidered antiques for gift pictures. They add a quaint Victorian touch to any room. Three 9 x 11-inch pictures; color charts; directions. 25 cents.

7174. Knit diamonds by the dozens for a colorful, cozy afghan. Use large needles, knitting worsted. Easy-to-follow directions for 5 x 6-inch diamond. 25 cents.



7216

7216. Something different! Gay little house is really a toaster cover. Make roof of plaid gingham; applique shutters, embroider flowers. Transfers, directions. 25 cents.

NEEDLEWORK PATTERNS ARE TWENTY-FIVE CENTS each. Add 5c each far 1st-class mailing. Send orders (with cain) to: AMERICAN AGRICULTURIST, 257, Needlewark Service, P. O. Bax 162, Old Chelsea Statian, New Yark 11, N. Y. Send 25c far aur Needlecraft Catalog with 200 designs ta arder.

Attention Baby Sitters!

Three excellent child care booklets are being offered by the Women's Community Building of Ithaca, New York. They were written especially for baby sitters and trainers of baby sitters, for the purpose of helping boys and girls learn how to care for young children in their own homes and in the homes of neighbors and friends.

The booklets are entitled, "Taking Care of Baby"; "Taking Care of a Pre-school Child"; and "Taking Care of a School-age Child." They are based on material prepared originally by members of the Family Life Department of the Cornell College of Home Economics.

A set of the three booklets costs 75 cents, but the price drops to 55 cents when ten or more sets are ordered. These booklets give parents, teachers, and group leaders a sound basis for helping teen-agers to understand young children. Any organization sponsoring a training program may place its name on the cover.

To order a sample set, send 75 cents to the following address: Child Care Booklets, Women's Community Bldg., 100 W. Seneca St., Ithaca, New York. Make checks payable to "Child Care Booklets."

March Is Egg Month

(Continued from Page 55)

sprinkle chopped peppermint candy on the whipped cream topping.

CREME CARAMEL

½ cup sugar
3 eggs
⅓ cup sugar
¼ teaspoon salt
2 cups milk, scalded
½ teaspoon vanilla

Caramelize ½ cup sugar by melting in heavy pan over medium heat, stirring constantly until sugar begins to melt. When sauce is golden brown pour a little into each of 6 custard cups. Move cups so caramel will coat sides. When caramel is hard, fill cups with custard.

To make custard, combine eggs, sugar, and salt and beat only slightly to mix. Stir scalded milk into the egg mixture and add vanilla. Pour into caramel custard cups. Set cups in pan of hot water 1 inch deep, and bake about 30 minutes in a moderate oven (350°) until tip of sharp knife inserted in center comes out clean. Remove from heat and chill. When unmolded, caramel runs down sides forming a sauce.

How To Own a ½ Acre Estate in This $12,000-an-Acre Neighborhood for only $795 $10 MONTHLY



Amazing land bargain at ALBUQUERQUE, New Mexico

With 274,000 people now and streaking toward a million, fast-growing Albuquerque, New Mexico, now offers you the opportunity of a lifetime to own choice big-city homesite land for pennies on the dollar—far below current market prices. Learn how you can actually be a big landowner here for only $10 monthly and get in on the fortune-building potential of big-city land in this booming sunshine resort metropolis, famed for the best climate in the U.S.A.

RIO RANCHO ESTATES is located directly on the banks of the romantic Rio Grande River, **only five minutes from metropolitan Albuquerque,** and right next to a $12,000-an-acre golf course development. Schools, churches, theatres, big-city shopping all just a few minutes downtown from property. Guaranteed ideal land for building, with roads, power, phones, water system already available to those desiring to build homes now or later.

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Nowhere else in the entire Southwest can you buy choice land in such a prime location—so close to a major city—for as little as $10 monthly. Complete price only $795 per half-acre, $1,495 per full acre ranch estate. Remember—this is big-city land, with adjacent property already priced at $4,500 to $12,000 per acre. Act now! Land prices are starting to skyrocket in this "Sunshine Paradise" of the great Southwest. Rush coupon for FREE fact book, land maps, photos. Absolutely no cost or obligation.

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RIO RANCHO ESTATES, Dept. RR-11
A Division of American Realty & Petroleum Corp.
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Please rush FREE fact book, land maps, photos, and details on the big-city land opportunity you offer at far-below-market prices, at ALBUQUERQUE, New Mexico.

Name.....
Address.....
City.....Zone.....State.....
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Take time off for a week-end when you can.

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SYRACUSE, N. Y.

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Send for further information and prices.
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Soften UDDERS! Heal TEATS!



The **same** antiseptic ointment in which Dr. Naylor Medicated Teat Dilators are packed. Designed to relieve soreness . . . congestion. You will like this modern, more effective medication for Tender Udders, Sore Teats. $1 at drug and farm stores or write.

H. W. NAYLOR CO., MORRIS 4, N. Y.

BOTH HAPPY

Cows, even more than most animals, respond to gentleness and affection.



Cows Are Emotional, Responsive to Kindness

ONE early summer morning when I was a young farmer operating a large dairy farm, I was attempting to drive a heifer from the barnyard into the stable. Every time I got her almost to the door she would suddenly dart off to one side, and I would have to start all over again. Tired out from labor of long days from four o'clock in the morning until early evening, I suppose my temper was constantly near the boiling point. Anyway, after about four trials at getting that contrary beast into the stable I up with a sizable stone and heaved it at her with all my strength! It might have killed or badly injured her—but at the moment I didn't care if it did.

The rock didn't hit the heifer, but in throwing so violently I lost my balance and fell, cracking my kneepan, which ever since reminds me of the incident when the weather changes.

Later, I saw a farmer beat a cow almost to death with a milking stool after she had kicked him into the drop. Since then, I have never touched a cow or any other animal in anger.

Since that time I have visited with hundreds of dairy farmers in their pastures, and can always tell what kind of a dairyman a farmer is by the attitude of his cows. If they run or stay strictly away from him, I know that there is no love lost between them—and that they are not producing at their best.

Many of you will remember the late Ed Babcock, author of his famous "Kernels, Screenings & Chaff" page in this paper. He was a good example of what I mean about the relations between cows and owners. Many times I have been with Ed when the cows would crowd up close to him in the pasture to get their heads scratched or hear a gentle word. Ed also had the habit, followed by many good dairymen, of going down to the stable just before he went to bed to see that all his cows were tucked in well for the night. I have never known a more enthusiastic or better cowman than was Ed Babcock.

Temperamental

In some of the most interesting experiments with animals that I have seen, Professor Howard Liddell of Cornell University has shown what highly nervous systems animals have and how, like human beings, animals can have complete nervous breakdowns when put under too much strain.

The highly emotional characteristics of some cows is proved by the fact that any excitement or harsh treatment will often keep them from giving down their milk. One good reason for washing the udder of a cow before milking her, in addition to cleanliness, is to encourage her to give her milk down by the gentle treatment. Believe me, cows **do** respond to kindness, and like we humans they have their likes and dislikes. I have had cows that would kick the daylights out of a hired man whom they disliked and be gentle as a kitten with anyone else. Few kicking cows would ever have acquired the habit if they had been treated carefully and gently when first milked.

On the other hand, like children, cows understand and need firm treatment, some more than others. Cows can be very jealous. A few years ago at my farm at Etna, near Ithaca, we had a beautiful young Jersey named Betsy. If for any reason we skipped Betsy so that she did not have her regular turn with the milking machine, she raised all kinds of rumpus until we came back and put the machine on her. Jealousy also, as every farmer knows, causes fights among the animals in the barnyard.

All of this adds up to the fact that cows are intelligent and temperamental, with many of the same qualities that we humans have, and above all, that they respond to kindness.

OH, MY RHEUMATIZ!

OVER 10,000,000 Americans suffer from rheumatism. In spite of fake advertisements there is no known cure, but there are controls.

After more than 30 years of suffering from rheumatoid arthritis and talking with many doctors and specialists, what they have told me and what I know from my own experience can be summed up as follows:

1. **Keep your weight down**

 Every extra pound is that much more for aching muscles and joints to lug around. Eat a balanced diet with plenty of protein and limited amounts of fats, starches, and sugars.

2. **Don't get overtired**
3. **"Heat is your friend: Cold is your enemy."**
4. **Don't waste money on useless and often harmful patent medicines**

 Aspirin will help to control pain and is believed to have some curative effects.

5. **If any joint shows redness, or if pain continues to be severe, see your doctor.**

MY MISTAKE

ON my page in the January 1962 issue, I quoted these beautiful lines:

"Truth forever on the scaffold;
Wrong forever on the throne
But that scaffold sways the future, and behind the dim unknown
Standeth God within the shadow keeping watch above His own."

Unfortunately, I gave credit for this to Bulwer-Lytton instead of to James Russell Lowell. I am grateful to several of my friends who reminded me of the mistake, and pleased at this proof that there are so many discerning readers of American Agriculturist and of this page.

HOW LONG WILL WE STAND IT?

THAT invention of the devil and the politicians, the income tax, is 48 years old and getting bigger and more vicious all the time. When it was only a year old, a mere infant, the tax was ten dollars for a married man earning $5,000 per year. The first $4,000 was exempt, and the rate was only one percent. Now a married man earning $5,000 may pay over one-fifth, or $1,020, in income tax. Pile onto that burden all of your other taxes and you will find that most of us are working months every year for the government before we have anything for ourselves, or for enlargement or improvements in business so as to keep our economy and free enterprise prospering.

The worst danger to our country is not the Communists. It is the rapid slowing up and eventual stopping of our whole economy by too much government, with its ruinous taxes.

Every country in history that has gone down in ruin was first weakened by wrong internal policies, so that it was helpless to defend itself against its outside enemies.

It's about time consideration was given to this backbreaking load that the taxpayer is carrying. Our representatives will listen **if they hear from you in no uncertain terms.** So—talk or write to your local, state, and national representatives on how you feel about the constantly increasing burden of taxes.

SIMPLE GEOMETRY

EVERY boy raised on a dairy farm well remembers the crooked paths that cows made winding back and forth across the steep hillside pastures. But crooked or not, those paths made sense, for they went around the steep pitches instead of straight up over them, and eventually reached their destination at the top of the hill.

It was natural, when the settlers built the first roads through the woods and swamps and over the hills, that they should do exactly the same thing. They looked for the breaks, and went around the obstacles, slowly but eventually reaching their destination.

That is good philosophy for all of us.

EASTMAN'S CHESTNUT

SOME of the best fun I have comes from the many stories that my friends send me.

One of the best came from Mr. Leland Smith, past Master of the New York State Grange. It is about a missionary whom the cannibals were preparing to eat. Said the missionary to the chief:

"I'm old and tough and you wouldn't like me a bit."

To prove it, he took out his jackknife, slashed off a piece from the calf of his leg, and handed it to the chief. The chief plopped it into his mouth, chewed for a minute, and then with a look of disgust, spit it out.

I don't know how many converts that missionary made, but he stayed on that island for fifty years. He had a cork leg!



Service Bureau

LINE FENCE

A reader, who is a town assessor in N. Y. State, has written:

"The article you printed on line fences in your January issue is not entirely correct and places the fence viewer or assessor in a situation where people insist on him causing a fence to be built."

We are sorry for this inaccuracy. "The article referred to stated: "According to the New York State law on fencing, each adjoining property owner must build and maintain his half of the line fence, regardless of whether or not he pastures cattle on the farm. If he fails to do so, the neighbor can call in the fence viewers (town assessors) who have the authority to order the delinquent owner to take care of his fence. If he does not, the fence viewers can authorize the neighbor to do so and the cost is legally collectible."

Actually, if two parties concerned cannot agree over building, maintaining, or dividing a line fence, the dispute shall be settled by any two town fence viewers, one chosen by each party. If either fails to choose after 8 days, the other party may select both. The decision of any two fence viewers shall be in writing, shall be filed with the town clerk, and shall be final.

If one party neglects or refuses to build or repair his proportion of the division fence, two fence viewers shall appraise and put in writing any damages to the other party. If the first party still refuses to make or repair the fence, the other should give him a written request to do so. If he still refuses after one month, the injured party may then recover the appraised damages, with costs, by taking legal action.

The point to which our reader called attention is that, after the decision of the fence viewers has been made and filed, any further affirmative steps must be taken by the parties involved.

It should also be noted that statutory fees allowed fence viewers are $1.50 per day.

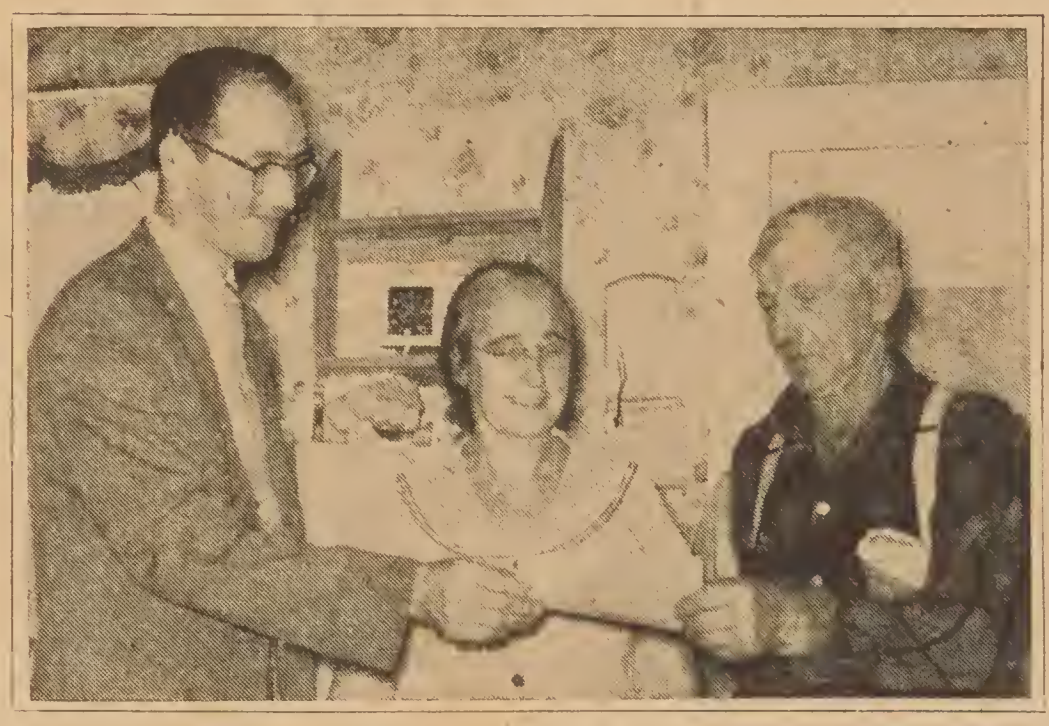
WANTS PARTNERSHIP

Every now and then someone contacts us and asks about opportunities to enter into partnership in a farm business. These requests usually come from younger men trying to get started in farming; often they already have considerable equity of their own in the form of tools and livestock. We don't check the pedigrees of folks who make such requests, but we're glad to pass along their names to anyone interested.

MISTAKE

Because of an error in mail delivery during the last Christmas season, orders for the Easy Trim Christmas Card Tree which was advertised on Page 31 of the November, 1961 issue of AMERICAN AGRICULTURIST, did not reach the advertiser, A. Garretson, whose address is 151-36 12th Road, Whitestone 57, N. Y., is refunding all money that accompanied orders, and wants to be sure subscribers know the reason for the situation.

Knocked Down By Calf Hurt Skull and Lung



Mr. and Mrs. James Beldock of DePeyster, N. Y. receive check for $663.17 from local agent LaVerne Storum of Redwood, N. Y.

Badly injured, Mr. Beldock was twenty-two days in the hospital and many weeks laid up at home. He carried several North American policies which together paid medical expense and weekly income benefits totalling $663.17. This is a copy of Mrs. Beldock's letter to agent Storum.

I am writing this letter to express our appreciation, to you for the personal help you gave us and to the North American for their prompt and pleasing settlement of my husband's accident.

When you called on us last December, we knew the value of the old policies we carried, because of the $2450.00 payment when our son was killed in an automobile accident in 1955.

Frankly though, we didn't fully realize the value of the new medical policies, which we added to our protection when you called.

Your policies paid all of the bills and we still had enough left to help a great deal while my husband was laid up. This is certainly excellent protection for the low cost.

Mrs Florence B. Beldock

A friend's name may be in this list of claims paid.

William Coyle, Wellsville, New York Auto accident—fractured leg, cuts	$170.00	Dorothy Knapp, Salisbury Center, N. Y. Fell—fractured ankle	109.28	Hope Ann Huxtable, Richfield Spgs., N.Y. Auto accident—fractured thigh bone, cut scalp	1199.99
Gladys Wagner, Freedom, New York Kicked by cow—injured back	228.57	James Peebles, Lowville, New York Tractor backfired while cranking—injured elbow	421.80	Lydia, Austin, Potsdam, New York Gored by cow—injured knee	247.14
Alfred Hatfield, Moravia, New York Badly injured hand while changing tire	948.31	Roslyn Mather, Cazenovia, New York Fell from hay wagon—injured wrist	155.57	Margaret Gray, Cohocton, New York Fell—fractured wrist	158.71
Dale Mead, Sherman, New York Broke leg in mowing machine	1036.83	Harlan Braman, Union Hills, New York Auto accident—injured arm	348.56	Hilma Ylinen, Spencer, New York Fell on the ice—fractured arm	236.77
Elmer Bush, Horseheads, New York Using buzz saw—cut hand	189.31	Raymond Sitterly, Amsterdam, New York Log hit hand—severe cuts	219.31	John Simmons, Groton, New York Kicked by calf—injured leg	153.57
Leo Lefave, Altona, New York Slipped on ice—injured chest and ribs	122.86	Howard Schrider, Holland Patent, N. Y. Fell from hay rack—injured knee	127.14	Walter Kobylenski, Calverton, New York Caught hand in potato combine	405.18
Ralph Mariele, Cincinnatus, New York Thrown from riding horse—fractured ankle	163.30	Kenneth Lewis, Holcomb, New York Fell loading hay truck—injured back	123.07	Henry Whitcomb, Ontario, New York Auto accident—fractured ribs	475.00
Florence Hunt, Onondta, New York Fell getting out of auto—fractured heel	113.05	Wesley Crawford, Middletown, New York Gored by cow—injured arm	150.00	Fred Colony, Troy, Pennsylvania Auto accident—cut chin, head, shock, frac. hip	187.50
Raymond Hansen, Springville, New York Kicked by cow—injured leg	601.60	Clayton Fletcher, Medina, New York Hit by board—injured thigh	180.76	Clark Dayton, Montrose, Pennsylvania Tractor accident—fractured wrist	265.00
Everell Oatway, Byron, New York Auto accident—torn ligaments of right shoulder	715.00	Charles Mattison, Sr., Altmar, New York Riding combine—severe cut wrist	357.14	George Leone, Swedesborn, New Jersey Fell—injured back	180.00

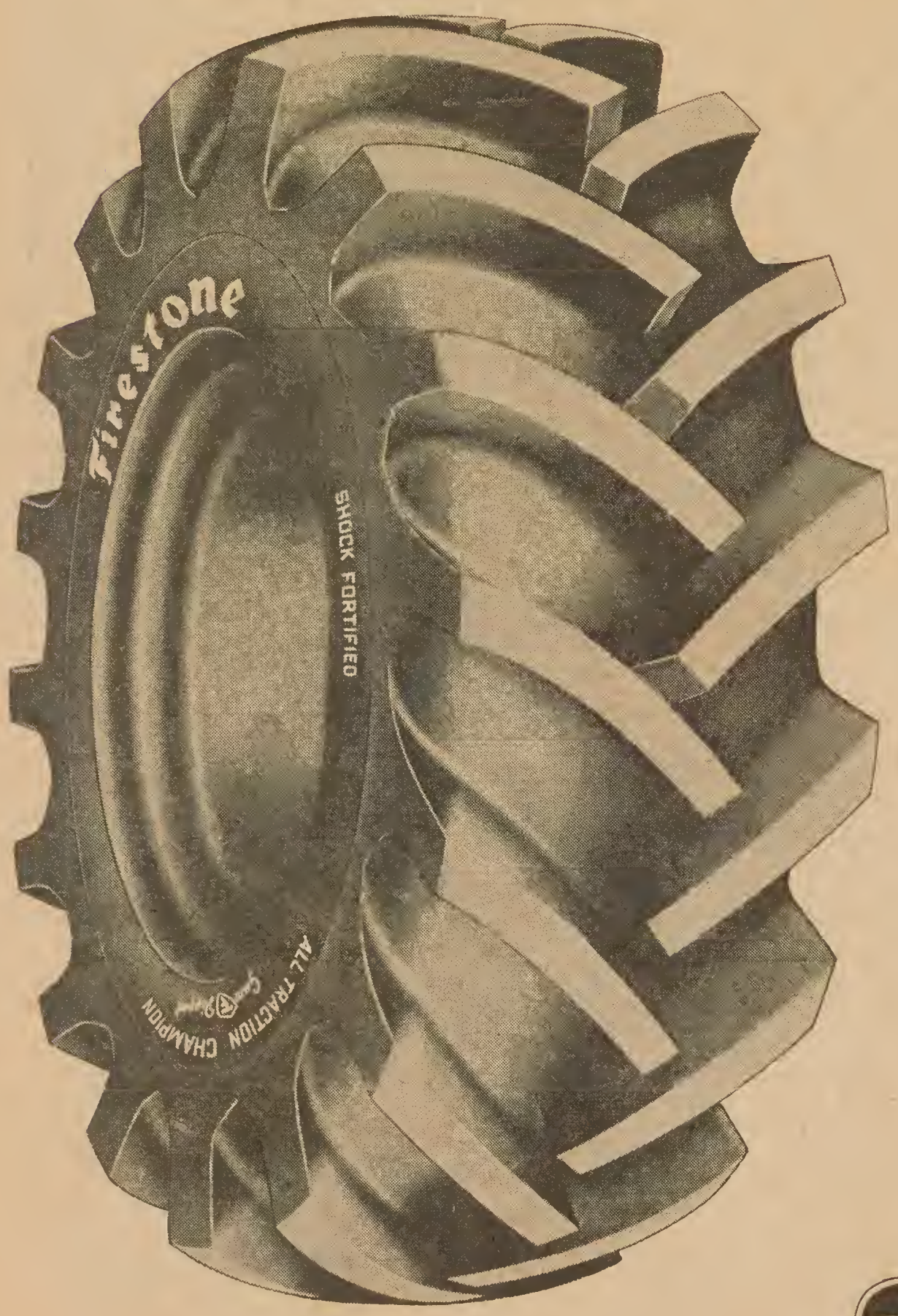
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NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
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SAVINGS BANK BUILDING ITHACA, N. Y.

Keep Your Policies Renewed

Firestone's famous Farm-Proved All Traction Champion

now at new low prices!

Here's the same hard-pulling Firestone tractor tire farmers from coast to coast have traction-proved under all conditions . . . the same tough, self-cleaning Firestone Rubber-XF traction bars . . . the same Flex-Fortified sidewalls of special crack-and-break-resistant Firestone Rubber-X . . . and the same super-strong Shock-Fortified cord. Only the prices are lower. Get them at your Firestone Dealer or Store *now!*



These farmers and thousands more pick Firestone first in tractor-tire performance!



Floyd Peters
McCook, Neb.
"They've got the pull!"



Walter Gibe
Smyrna, Del.
"A good strong tire!"



G.L. Rouse
Luray, S.C.
"Plenty of traction!"



Roger Morrison
Mt. Vernon, Wash.
"Plenty of pull!"



Melvin Reitz
Shamokin, Pa.
"Really take hold!"



Howard Rea
Red Oak, Iowa
"Run clean and last!"



Oral Hopkins
Guthrie, Okla.
"Unbeatable!"



Herbert Weston
Logan, Utah
"Pull their share!"



M.H. Lee
Brandon, S.D.
"Last much longer!"



John Tokanel
Windham, N.H.
"I know they're better!"



J.T. Moss
Campbellville, Ky.
"They're tough!"



Otto Hannewald
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"They save us plenty!"



Jack Sales
Winter Haven, Fla.
"No sidewall cracking!"



Bob McCance
Elk Grove, Calif.
"Real good service!"

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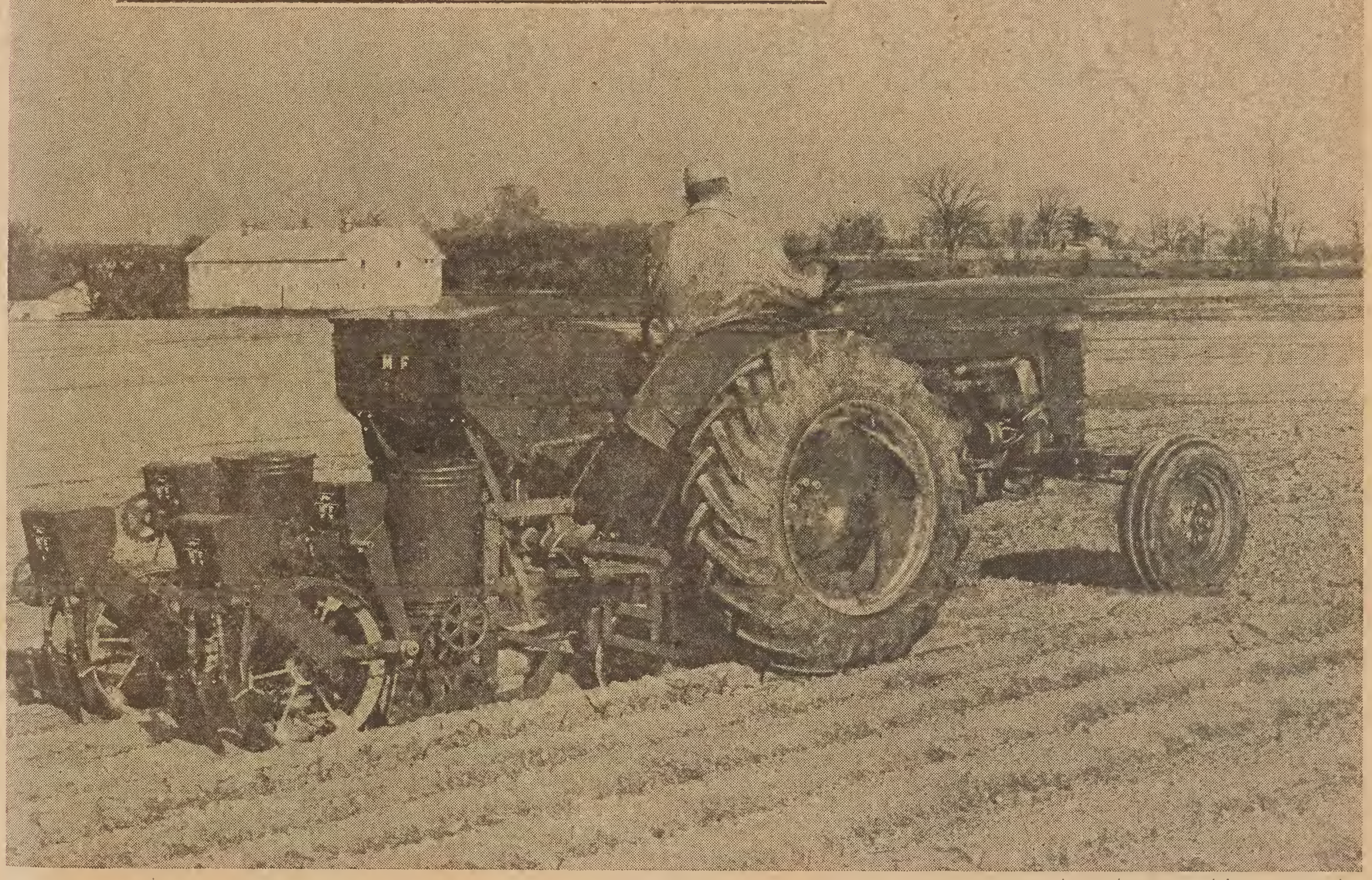
YOUR SYMBOL OF QUALITY AND SERVICE

Founded 1842

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

APRIL 1962



Here's a modern planter applying a granular herbicide and an insecticide.

WEED KILLERS FOR VEGETABLE CROPS

by R. D. SWEET*

BEFORE considering specific chemicals, let's review just how chemicals keep weeds under control, and the part played by rainfall or irrigation:

Some chemicals are primarily **preventatives** because they act only against germinating or sprouting seeds—these herbicides must be applied on soil where weeds haven't yet started. Examples are: Alanap 3, Boron, Dacthal, Monuron, Randox, Tillam, and Vegadex. Rainfall or irrigation greatly **helps** these chemicals.

Some chemicals are primarily **contact killers** because they act against the foliage of the weed. They usually are applied after the weeds are up, but some of them have to be used before the crop is up because in certain instances they may be toxic to crop foliage. Examples are: Dinitro, Solan, and Stoddard Solvent. Rainfall is **detrimental** if it comes within a few hours of treating because it may wash away the chemical.

Some chemicals are active against sprouting seeds, roots, and plant foliage—these are sometimes called **systemic** herbicides. The best known of these are Atrazine, Dalapon, and 2,4-D. Rainfall is **not important** with these because if the chemical is washed off the leaves, root uptake will be favored.

New for '62

Northeastern vegetable growers will find two herbicides "brand new for '62"—Dacthal and Solan. Dacthal has shown outstanding performance on crops that are members of the cabbage family, Solan does very well on tomatoes. Although these two newcomers in the herbicide field appear safe, growers are urged to try them only on a small scale in 1962.

Dacthal is a preventative type weed killer which has proved to be safe and effective on seed beds field-seeded or transplanted broccoli, cabbage, and cauliflower. Its weakness is that it will not control either ragweed or smartweed. The performance is better if good rainfall or irrigation occurs soon after spraying.

(Continued on Page 34)

*Professor, Vegetable Crops Dept., Cornell University

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Your Money Back

. . . IF THIS BRAND-NEW TRACTOR TIRE DOES NOT OUTPULL ANY REPLACEMENT TIRE YOU'VE EVER BOUGHT

Firestone announces the new "FIELD & ROAD" at sensationally low prices!

This is the Firestone Field & Road tire —a totally new concept in rear tractor tire design that gives guaranteed unmatched field traction and outwears any other replacement tractor tire ever built. This new tire's performance is so superior that it is backed up with an unprecedented full money-back guarantee.

Here is the shape of tractor tires to come —this advanced design meets all of the new traction needs of modern tractors. Only Firestone Field & Road tires give these traction and durability advantages at sensationally low prices *NOW!*

Tough, deep-biting traction bars gear the tire to the ground for a tighter "foothold" yet come up clean to keep you going where other tires spin-out. New exclusive "sidewall action" gives you total shoulder-to-shoulder tread contact to the ground to give you all the pulling power you paid for in your tractor. Two types of Firestone rubber are used in this tire—one in the sidewalls to withstand flexing without weakening—the other, Firestone Rubber-XF, to increase tread life. New bar shape, set at 23° angle, stops scrubbing—*ends excessive* road wear. And Firestone's powerful Shock-Fortified Tyrex® cord body gives you unmatched impact protection.

Call your Firestone Dealer or Store today and find out how little it costs to have a set of new Field & Road tires put on your tractor. Use them for 60 days. If you're not convinced this tire delivers more traction than any replacement rear tractor tire you've ever bought, your money will be refunded.

FIRESTONE FIELD & ROAD TIRES ARE TRACTION GUARANTEED

If, within 60 days of the date of purchase, the new Field & Road tire does not outpull any other replacement rear tractor tire you've ever bought, your Firestone Dealer or Store will (1) refund within 30 days thereafter the amount paid or (2) allow the amount paid in full credit on any other Firestone rear tractor tires. (This traction guarantee does not apply to special-purpose rear tractor tires used in rice and cane farming.) The new Field & Road is further guaranteed against defects in workmanship and materials for the life of the original tread.

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Firestone

YOUR SYMBOL OF QUALITY AND SERVICE



NEW WIDE-SPACED TRACTION BARS give guaranteed unmatched pulling power under all conditions.

NEW TRACTION BAR SHAPE AT 23° ANGLE stabilizes tread—ends excessive road wear.

NEW "SIDEWALL ACTION" PERMITS FULL SHOULDER-TO-SHOULDER CONTACT to conform to and take hold on any surface.

NEW LONG-WEARING TRACTION BAR RUBBER of specially compounded Firestone Rubber-XF wears much slower and stands up longer under all conditions of use.

NEW STRONG SHOCK-FORTIFIED TYREX CORD BODY has the extra strength to take the toughest day-in, day-out use.

THESE FARMERS TESTED FIRESTONE'S FIELD & ROAD NATION-WIDE . . . read what they say!



David Sprenkle, Spring Grove, Pa.—"Strongest pulling tires I've ever used . . . the tougher the going, the better they pull. I'm sold on them!"



Tom Rea, Red Oak, Iowa —"Firestone's whipped excessive road wear and vibration. Traction bars don't flat spot in the center!"



Robert Goblirsch, Redwood Falls, Minn.—"We compared this tire to others plowing with same size tractors . . . Field & Road won!"



Roy Taylor, Lake City, Ark.—"I've used these tires hundreds of hours but in the first minute I could see they cleaned and pulled better!"



Clarance Scuse, Smyrna, Del.—"I tested these tires cleaning feed yards. I'm amazed how they clean and take ahold . . . even in sticky going!"



Seth Orr, Hillsboro, Tex. —"Firestone gives farmers two big advantages in one tire . . . a lot more pulling power, a lot less road wear. This tire is a real buy!"

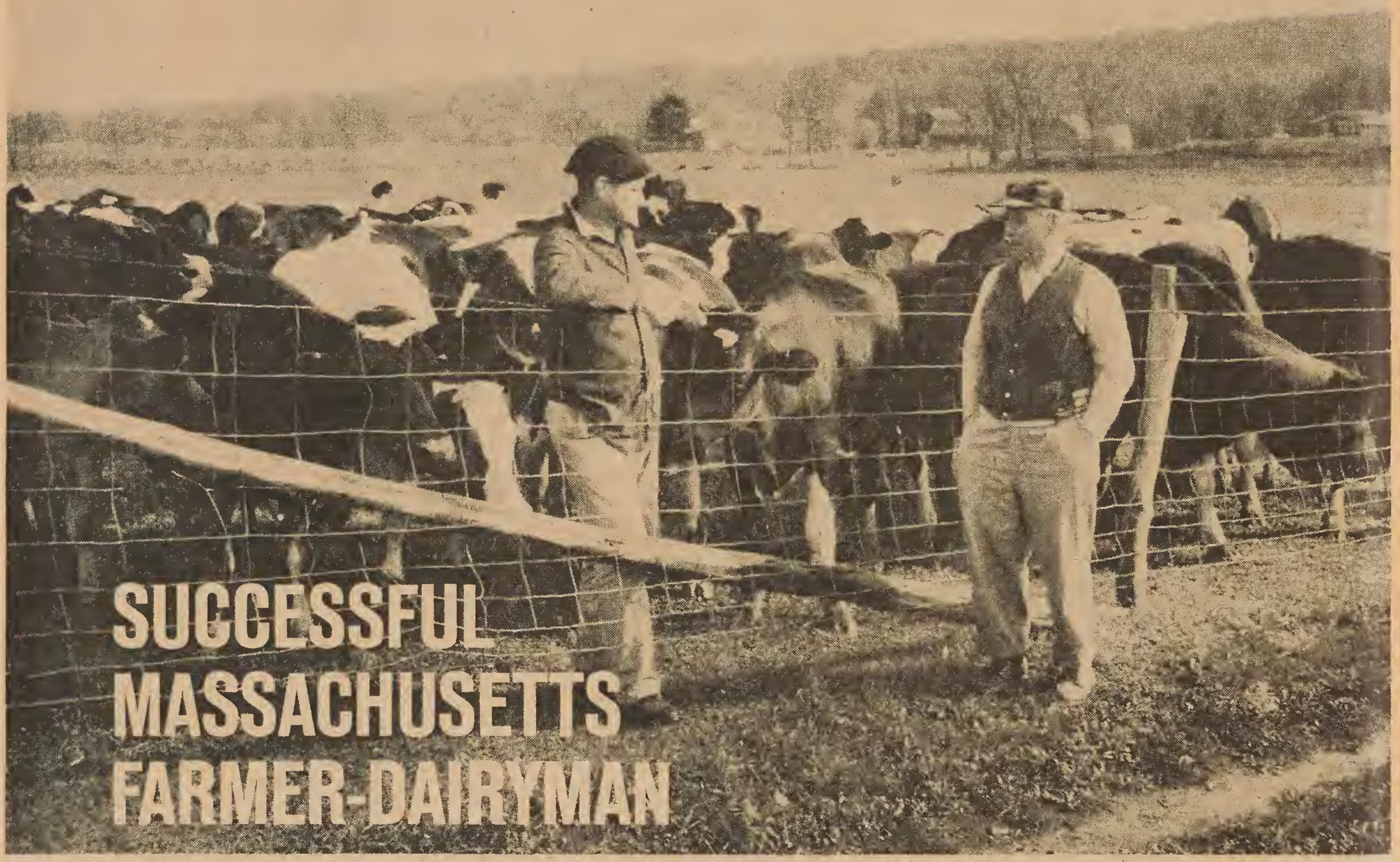


Wayne Hardy, Kerman, Calif.—"This tire will pull right through wet spots I wouldn't try with others. Besides, Firestone has solved this problem of road wear!"



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Worth More Because it Does More!



used ARMOUR FERTILIZERS in 1924... still does in 1962!

Mr. **Frank Yazwinski** started a small dairy and tobacco farm near Deerfield, Massachusetts, back in 1924. He used Armour fertilizers from the beginning.

Since 1924, Mr. Yazwinski and four of his sons have built their farm into a modern, 250-acre corn, potato and dairy operation producing more than two tons of milk daily. Today, as in 1924, they depend on Armour fertilizers. In fact, they now use Armour Vertagreen exclusively!

That's the way it is with Vertagreen farmers. They like it, and they stay with it!

Here's what **Joe Waltman** of *Lycoming County, Pennsylvania*, says about Vertagreen: "After comparing Vertagreen with several other brands of fertilizer over a number of years, Vertagreen is best by test." The Waltman & Sons Farm has won the county 5 Acre Corn Contest for three straight years with average yields of over 150 bushels of shelled corn per acre!

R. M. Boys put Armour Vertagreen to the test on his 500-acre farm in *Glasgow, Delaware*, comparing it with a regular fertilizer. The result: Vertagreen produced 17½ more bushels of corn per acre! No wonder Mr. Boys says, "Vertagreen for me on any crop! It always gives me the best results."

This year, join the thousands of experienced farmers who use Armour Vertagreen. Your increased profits will prove that this is a fertilizer that's "Worth More Because It Does More." See your friendly Armour Agent soon.



ARMOUR AGRICULTURAL CHEMICAL COMPANY

Vertagreen, complete premium fertilizer / Mixed fertilizers, bagged and bulk / Ammonium Nitrate / Nitrogen Solutions / Anhydrous Ammonia / Ammonium Phosphate / Triple Superphosphate & Phosphate Rock



Editorials

By Gordon Conklin

STEPS FORWARD

IT IS generally agreed that farmers need greater bargaining power in the market place—how to attain this power is a more controversial subject. While the debate rages, two recent moves stand out as examples of less talk and more action.

Haxton Foods, Inc., of Oakfield, N. Y., is in the process of becoming a part of Pro-Fac Cooperative. Growers have pledged $300,000 in Pro-Fac stock subscriptions to pave the way for the purchase of Haxton's five plants.

Pro-Fac itself was formed in similar manner last year when 500 growers pledged $600,000 to finance their cooperative and buy the plants and equipment of two western New York food processing concerns. The idea for Pro-Fac was developed and offered by G.L.F., and implemented by the growers.

Pro-Fac got off to a running start in 1961 with far-above-average crop yields on contracted acreages. With the acquisition of Haxton Foods, the 500 growers will become 700, and their four plants will become nine.

Another step to strengthen marketing activities of farmers comes with the announcement that the Dairymen's League has become a full participating member of O-AT-KA, a cooperative milk manufacturing organization at Batavia, New York. This move, involving the shipment of 60 million pounds of milk a year to O-AT-KA by the League, followed agreement by four cooperatives: Western New York Milk Producers Cooperative Association, Genesee Valley Cooperatives, Frontier Federated Cooperatives, and the League. Here's a case of dairy cooperative representatives sitting down around the table and putting the interests of dairymen first.

I'm sure we can agree that even more pulling together is sorely needed in marketing farm products. Here are some folks who have come out of the huddle and are carrying the ball; all indications are that these new organizations are soundly based and intelligently managed.

The growers and dairymen involved have had to sacrifice something to bring these things to pass—in time, effort, or the "right" to do just as they darn please with their products. But the resulting concentration of power in the hands of elected boards of directors is far healthier for farm people than to give such power to politicians, whose positions inevitably depend on the votes of persons 90% of whom are not farmers.

BIRD IN THE HAND

IN MOST of our world, the belief seems to be increasingly popular that "a bird in the hand is worth two in the bush." We are very much concerned that we possess tomorrow at least as much as we do today, and we seem ready to pay the price of such security—the price of limited opportunity.

The union member accepts the limitations imposed by the closed shop in return for the advantages gained by the contract negotiated by his union. Everyone under Social Security coverage pays into this system an increasing percentage of his income, believing the benefits to be derived later will outweigh the present limitation of the opportunity to spend what we earn as we see fit.

We should remember that pension funds, especially those administered by government, are extremely limited regarding where they may be invested. Social Security contributions constantly increase as a percentage of individual income. As a greater portion of national wealth is committed to "security" of this type, less risk capital is available to back the modern-day Henry Ford, Thomas Edison, and others. "Taking a chance" has always been the first step in new developments.

And now dairy farmers are faced with a decision about another form of security, weighing its advantages and its drawbacks. Like practically all forms of collective security, supply control offers a bird—or at least a piece of a bird—in the hand and reduces the opportunity of catching two in the bush. But, particularly in the light of recent trends in popular thinking, it is understandable why a small certainty may be more appealing than large, but uncertain, opportunity. That there are certain advantages to a milk supply control program cannot be denied; that there are limitations is obvious.

For whatever they're worth, here are some things that have occurred to me while walking along a country road (a doctor friend tells me that blood finally gets to my brain while walking).

First, let's be sure we're thoroughly acquainted with **both** the advantages and limitations of this proposal. When we buy a car and obtain all the privileges of such ownership, we not only pay plenty of shekels but also assume the responsibility of insuring, licensing and maintaining it. When we say "I do" at the church altar, we gain priceless privileges — but we also assume great responsibilities and accept certain limitations. The current divorce rate proves that many of us were either very poorly informed about the nature and extent of these responsibilities and limitations, or else we were very poorly prepared to accept the bitter with the sweet.

Secondly, review what you consider to be the purposes of human life. Irrelevant to the question at hand? Not at all, for such a basic belief plays a part in all our decisions.

It is my conviction that the purpose of life is to grow to the maximum dimension of thought, spirit, and skill—coming as near as possible to realizing the potential with which our Creator endowed us. This growth is not confined to the ivy covered halls; learning how to do a top job of managing a farm is as much a part of this quest as doing research on Shakespeare's writings. Even as the theologian finds new vision in the quiet of his study, so a man's spirit can find wings as he searches the dawn-hushed hills for his cattle.

You need not agree with my beliefs; I only ask that you review your own and then apply them as a yardstick with which to measure proposals that may bring major changes to the way we live and the direction we are to go. The sweep of history tells us that man moves to greatness or dust according to what he believes—and that he moves step by step rather than in great leaps.

Finally, let's remember the good advice of our ancestors embodied in the Constitution of this nation. We need to provide for checks and balances, in the full knowledge that irreversible concentration of power can be extremely dangerous. We need to keep clear the path to amendment of any regulation or law so that the fruit of experience and the heady wine of change may be constantly put into what is advertised as a legislative horn of plenty.

SOMETHING MISSING?

IF you've turned to page 5 of **American Agriculturist** for many a moon to find the "Dollar Guide" and "Lazy Farmer," you may be wondering where the heck these popular items are in this issue. Fear not—they can be found on page 14; ye editor hasn't pushed them out in favor of his own ruminations.

Contributing editor Hugh Cosline continues to write the "Dollar Guide" and Merrill Gregory, of Naperville, Illinois, carries on the work of writing the "Lazy Farmer"—a job begun by his father, the late Cliff Gregory.

GARDENER

He knew what makes the grass to grow,
And how to make a flower bloom
In greenhouse or in garden plot,
Or in a sunny livingroom.

He knew how deep a bulb should sleep
If it would wake at call of spring;
He knew good earth by smell and touch—
And this is not a little thing.

His days and years he gladly gave
For beauty. It was all he had
Or really wanted—and it was
A bargain he thought far from bad.

But still his wealth was limitless,
For beauty never really dies,
Or dulls or dims—as long as seen
By someone's watching, loving eyes.

He shared it all with those who cared—
Some spots will now be always bare
Or cluttered up with ugliness,
Because he is no longer there.

—Esther Valgk Georgns

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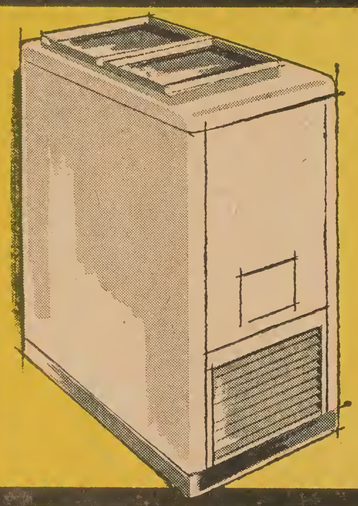
50TH

ON LP-GAS APPLIANCES

COME IN AND SEE THE ANNIVERSARY SPECIALS

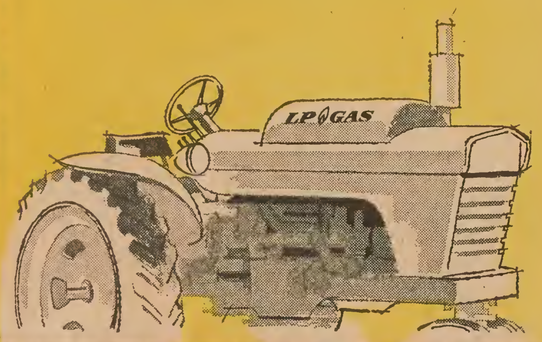
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Convert your home to dependable economical LP-Gas heat. Buy a new LP-Gas furnace, or convert your present oil burner. You can even convert your present gas furnace to a central air conditioner.

Convert your tractor to LP-Gas. You'll save the cost of the conversion kit in the first six months of operation by reducing fuel and maintenance costs. Further, engine life is doubled!



STOP AND SAVE WHEREVER YOU SEE THIS SIGN



Right now, LP-Gas and appliance dealers all over America are celebrating the 50th Anniversary of Liquefied Petroleum Gas—the miracle fuel and power source that gives you the convenience and economy of gas no matter where you live.

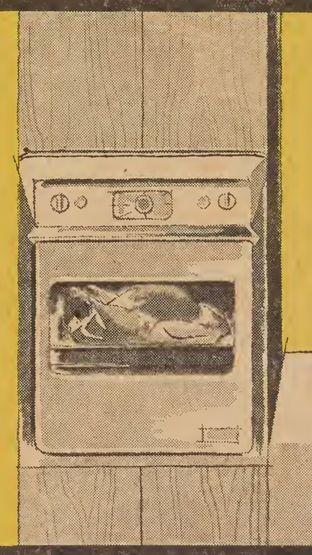
You'll find all kinds of specials wherever you see the 50th Anniversary sign displayed—special trade-in allowances...special anniversary models ...even special discounts.

If you've been thinking about buying a new appliance, or converting your home and farm equipment to economical LP-Gas, you'll never find a better time to do it than right now.

Look for the 50th Anniversary sign at your LP-Gas or appliance dealer. Then stop in and celebrate with savings!

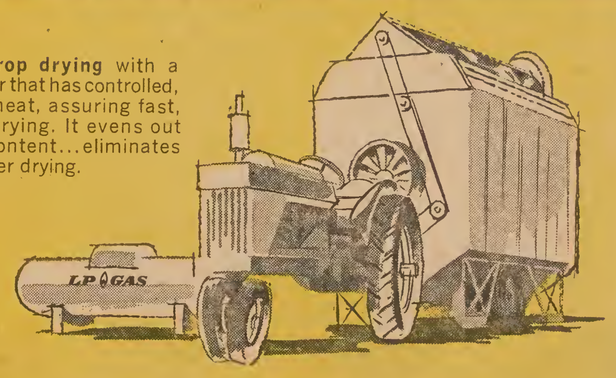


Give your family plenty of hot water. An LP-Gas hot water heater costs you less to buy and install, and far less to operate. And it gives you instant hot water, when you need it.



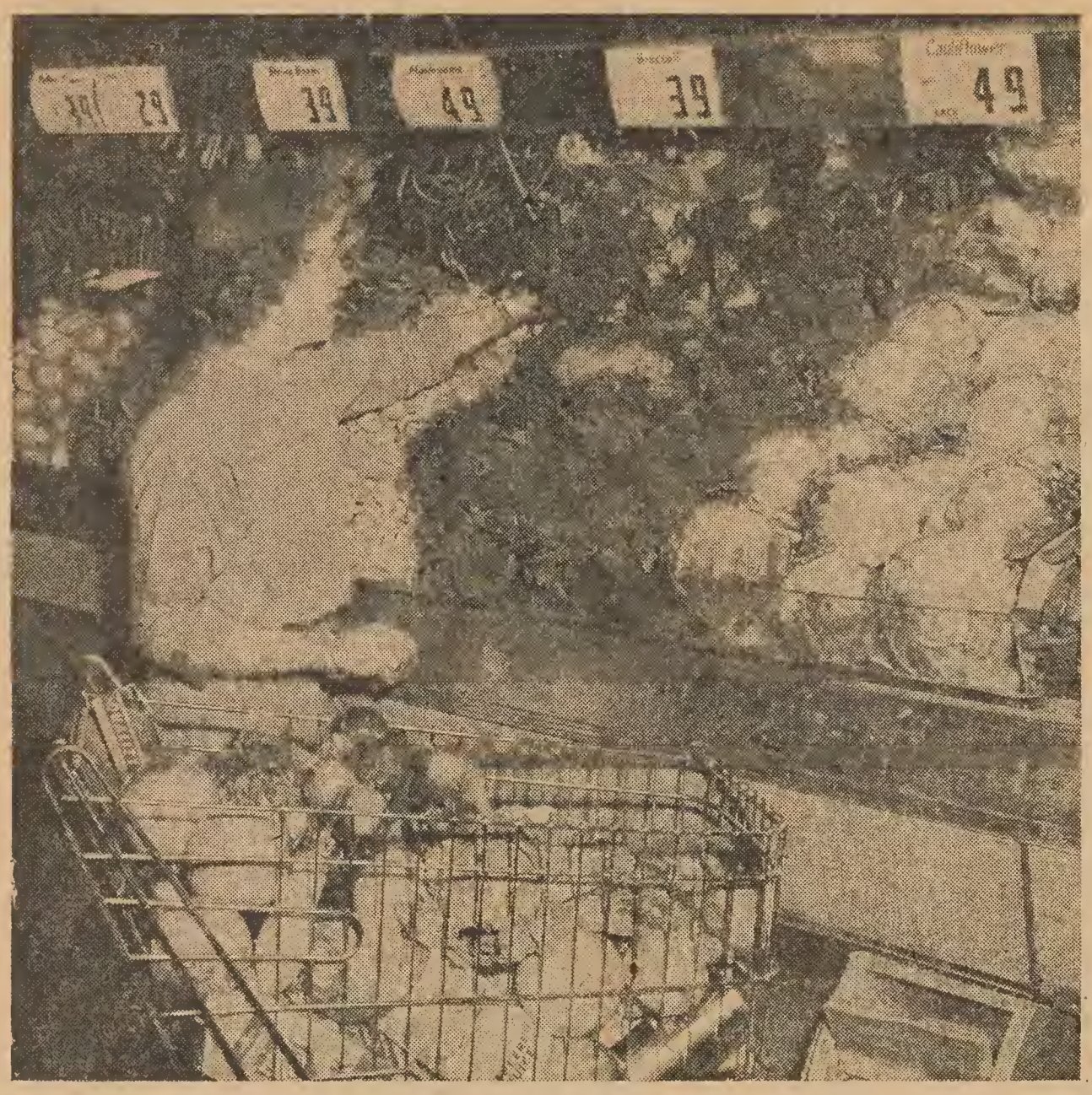
Modernize your kitchen with a new built-in LP-Gas range and oven. The burner with a brain keeps temperature exactly where you set it—food won't overcook, burn or boil over. See the new eye-level oven that ends stooping.

Uniform crop drying with a LP-Gas dryer that has controlled, forced air heat, assuring fast, thorough drying. It evens out moisture content...eliminates over or under drying.





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Here's my real boss—the American housewife. She's the final judge of what I buy and growers produce.

I Buy Produce for A "CHAIN"

Here's What the Produce Buyer Expects from Growers—and Why

By DAVID DIVER*

A BRIEF LOOK at what has occurred in the food industry during the last decade will make the produce buyer's viewpoint more understandable—as well as point the way toward needs producers must satisfy. Throughout the fifties the number of chain stores has declined, but volume per store has increased dramatically. Stores are larger, more modern, and better equipped; self service has increased.

Incomes Up

The level of consumer income has risen, creating a larger demand for convenience foods and pre-packaged perishables. With larger incomes, the housewife is willing to spend more for food **if** the item presents a value and **if** the quality is good. The operator of a supermarket realizes that if perishable products aren't good, Mrs. Smith, the customer, will return them and he may lose her as a customer.

During this period of rapid supermarket expansion, there also have been many instances of growth of farm marketing groups. Many shippers now represent more growers than ever before, and the size of individual farm businesses has also increased greatly.

Improved methods of refrigeration, communication and transportation have enabled chain buyers to purchase directly from shipping point rather than rely on terminal market facilities. Many times a complete load may have from 3 to 25 different items that may be picked up over an area of several hundred miles. In addition, with the increase of supermarkets, competition among them has grown by leaps and bounds.

Before purchasing a specific amount of any item, the buyer must know what the merchandising program is going to be. In order for that decision to be made, the buyer and merchandiser must go over the recent market information they have concerning all produce. Telephone and teletype communications keep them informed of all developments throughout the U. S. They attempt to accurately anticipate how much each item will cost today, tomorrow and a week from now.

Anticipation is the "key"—today's price may be dramatically higher or lower two days later. Will the apple market decline? What about potatoes or bananas? And, with Florida citrus just starting, which would make the best customer-attracting sales item? Featuring a particular item at near cost may increase its demand by up to 500% over a normal week. Also the featuring of one item will lessen the demand for another item the customer would normally use. For instance, with cauliflower featured, the demand for broccoli drops.

Since the chain buyer or his representative sces only a small percentage of produce purchased, he **must** have confidence in the supplier that the merchandise will be as described. If it isn't, the inferior item results either in additional costly effort to replace the rejected product, or dissatisfied customers. Many buyers order specific items primarily from the same supplier for years, while for other items they move from one source to another.

Some Experience

Perhaps an example from my own experience can best explain this. Undoubtedly, strawberries are one of the strongest produce drawing-cards in the spring, but also the biggest headache when it comes to obtaining quality and anticipating cost. I started buying from a man my predecessor had dealt with for years—being a new buyer, there was constant pressure from other suppliers to get our business, but I seldom dealt with them. In three years of buying from "my" supplier, there was never a load of berries that even approached rejection.

He often shipped berries when conditions were trying, but ours were **always** good. Several times he phoned to say that even the best available wasn't good enough—we went without berries. When he said a load would be in at 4 p.m., that was the arrival time. His drivers always were on time unless a breakdown occurred, and they then would notify us of a new time. We would discuss market volume peaks in advance and plan sales around them; if conditions occurred to alter this timing, he would promptly notify me.

This is illustrative of only a few of the things a shipper must do to establish a long-term relationship with a wholesaler or retailer. In addition, he must be ready to move with the market price at all times. A buyer can't afford to buy "high," because a competitor buying lower can retail lower, and this loses customers; also, several other growers willing to move with the market are generally available.

In today's fast moving world a grower-supplier must keep up with latest developments and react to them as quickly as possible. New varieties of produce that are more acceptable to the consumer are constantly becoming available. For instance, the numerous red peach varieties that are gradually replacing Elbertas bring the grower more money, and sell much better even at a higher retail than the Elberta. A buyer isn't going to buy green peaches when he can get faster selling red ones that will return more profit.

Pre-packaging

Pre-packaging is another development that has spread rapidly in recent years. Originally pre-packaging was done mostly at store level, but today this can be done more economically and more efficiently on many items at shipper level. Many consumer unit packages are being developed which cost little more than the original bulk container; in addition, these new containers enable the grower to market his product with less damage in transit and handling.

Let's not forget that the long-term buyer-seller relationship isn't a one way street in which the supplier does all of the adapting. Often there have been occasions of excessive supplies of a particular item. With a little advance notification, the buyer, after discussing the situation with the merchandiser, will buy an unusually large quantity to help the grower out.

Last year, one of our growers had an eggplant crop about triple his usual production. He said if we would help him out he could give us a price slightly below the going market, so the merchandiser and myself planned an eggplant sale. We bought twice as many as we had ever sold before, but thanks to the fine quality product and the outstanding selling job of our stores, we broke all sales records. We had many happy customers, and the grower sold his oversupply at a profit.

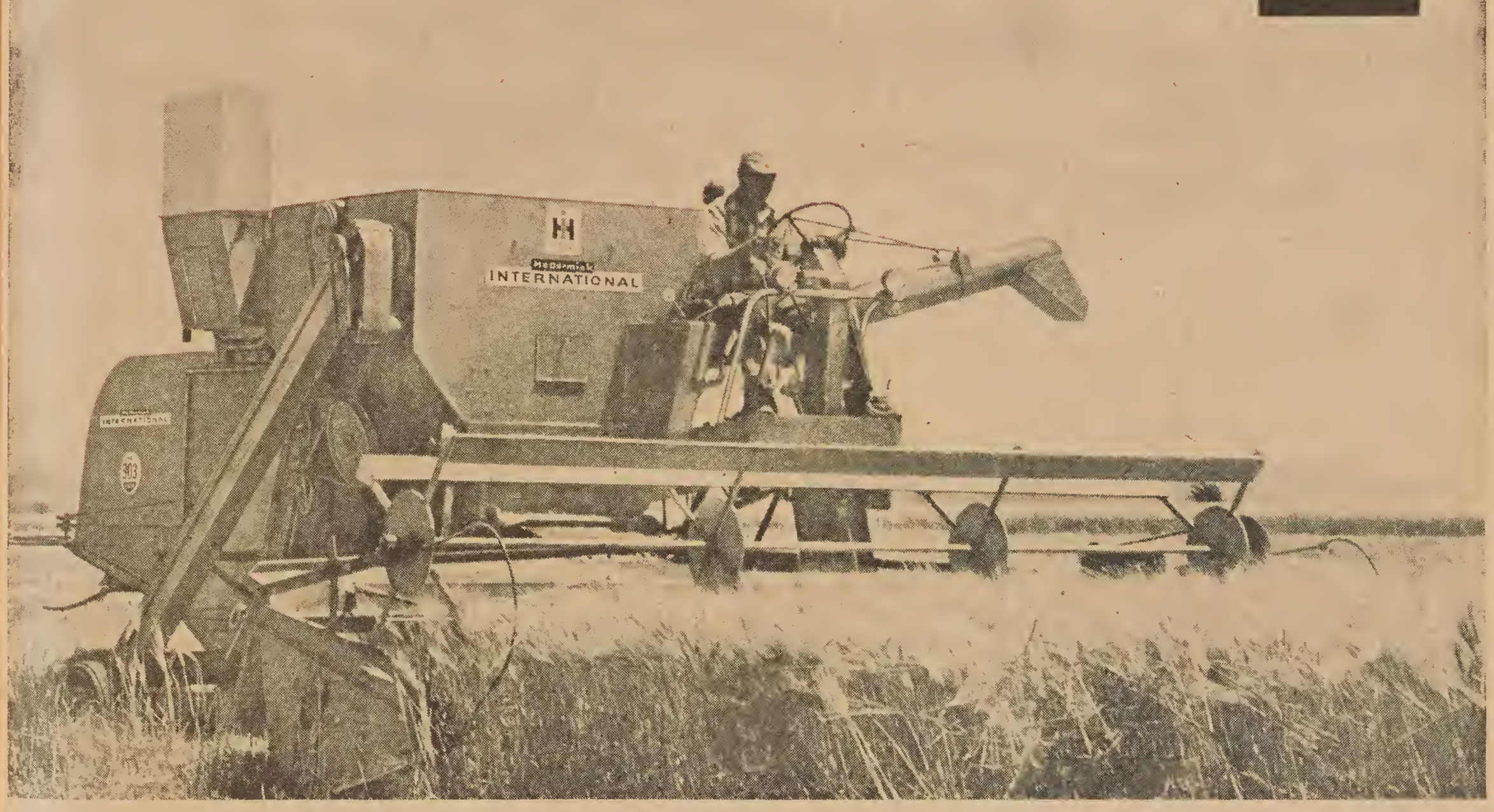
No longer is a farmer competing only with those in his own area, but also with growers from all over the country. Modern refrigeration and transportation enable a produce buyer to buy vegetables with equal ease from Maine to California. Many items, once avail-

(Continued on Page 31)

*Produce buyer for Kroger, Inc., Cincinnati, Ohio

NEW for '62!

303 COMBINE



New 303...big, tough, and rugged!

Cut swaths up to 14 feet . . . master heaviest going . . . save time and grain in every crop

Just a few minutes in the field with a McCormick® International® 303 tell you that you're handling a champion. Here's the best from the famous 101, and much more that you've wanted in a combine.

Over 40 ways new! And every change adds grain-saving capacity, operating ease, or strength. No wonder the 303 tops all other combines in its class.

Exclusive IH full-width threshing assures maximum efficiency where *all* threshing and 90% of separation take place. The 30-inch-wide cylinder, which extends into housings in separator sides, puts every inch of separator width to work. And you get plus-benefits of 113-inch-long straw racks, extra-wide, top-driven elevators, and big 55-bushel grain tank.

Corn harvest strong! The 303 gives you rugged box-beam axles, massive axle supports, and X-braced main sills of 2½ x 3½ x ¼-inch structural steel. Here's strength and rigidity that beats anything you've seen. Eighty-inch main tread and new, wide rear axle are ideal for row crops. Drives are beefed-up to handle power from 65 hp rugged IH engine with ease.

Lower, easier to operate. The 303 stands less than 10 feet tall when ready for transport. You check clean grain and tailings samples, adjust concave, right from the new foam-upholstered seat. Add hydraulic reel speed and height control, to save grain others lose.

Profit now with Early Trader's Bonus . . . profit later with the fastest, cleanest combining you've ever done. Choice of 10, 12, or 14-foot platform, fits the 303 to your needs.



Proved champions, IH 2-row corn heads topped all others in the 1961 National Corn Picking Contest. And, with the big, tough, and rugged 303, they're even better!



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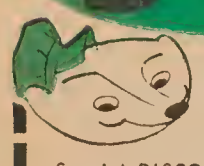
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More farmers Buy Badger than any other Silo Unloader

How to plan

A Farm Auction

by Harris Wilcox*

A GREAT many farm families at some time or other have an auction. It may be at the time of retirement, a herd disposal, or for countless other reasons. Whenever it comes, it is a very important decision to make, and always marks an important milestone in the life work of a farm family.

The auction method is usually the best way to dispose of cattle and farm machinery. Everything can be sold in one day for cash, and items good and poor, new or old, find a ready sale. Some items bring much less than expected; others bring much more. Auction sales have a remarkable way, however, of averaging out satisfactorily.


Harris Wilcox

The longer I am associated with the auction business the more sure I am that careful planning is a prime essential to a successful sale. Out of the experience obtained at hundreds of farm and cattle sales, I will try to outline some of the factors to consider in planning a successful auction.

It is of primary importance to choose an auctioneer or auction firm who has the public's confidence and respect. The auctioneer needs to be a student of values, be recognized as a person who will be fair to both buyer and seller, and possess the talent which is probably best described by the word "salesmanship." He should be thoroughly experienced in advertising and sale management, and have available to help him people familiar with the task of arranging, clerking and cashiering the auction. An inexperienced clerk or cashier can be a serious liability. A good sales force on sale day is of great importance. This is the last place to try to economize.

Pick The Date

Once you have employed your sales force, you will discuss the date of the proposed auction. Years ago most all farm sales were held in the spring. Now successful sales are being held every month of the year. Generally speaking, machinery and feed sell best in the spring, cattle in the fall and early winter, but this rule does not seem to apply as accurately as in years past.

During the months that daylight saving is in effect, we have found that evening or twilight sales are more satisfactory than day sales, due to the fact that a larger crowd will attend in the evening. We always sell the machinery while it is still daylight, and the cattle under lights.

Everyone seems to have a favorite day in the week for an auction. However, our experience has never revealed any one day which seemed better than another. A good farmer who is well thought of and who has good cattle and machinery can have a successful sale on any week day.

We believe in making every effort to avoid a date which conflicts with other farm, breed or weekly commission sales in the area. A check of sale calendars in breed and local newspapers will help to solve this problem.

Advertise

We must now consider advertising the sale. The auctioneer or sale manager usually handles this, as his experience in this field will prove invaluable. Sales should be advertised using the media of daily and weekly newspapers, radio, pennysavers, agricultural periodicals, breed papers, post cards to a mailing list, and auction bills. The sale should be announced by your auctioneer at all sales prior to yours. Needless to say, all auctions do not require the use of all this media, but of one thing we are sure, "it pays to advertise."

It will help to plan your auction a year ahead if possible. Plan to have a sizable percentage of your herd fresh or close to freshening at the time of the auction. Have your cattle in good physical condition, clean, clipped and well fitted. Remove diseased or inferior animals prior to the sale. They will bring as much or more in the beef market, and will detract from your herd on sale day.

D. L. Perry, a prominent auctioneer in the early part of the century, wrote in the Jersey Bulletin many years ago: "You all know that bones do not sell high, and all the extra feed for 60 days before the sale day that you give your cows. I will sell on sale day in the looks of your cow for three times what the feed cost at the mill; and for every dollar blanket that you buy one month before the sale, I will sell on sale day in the shape of the hair for ten dollars, and then will have the old blanket left that you can sell to help the rag man out."

We believe in selling the cattle in a carefully planned sale order according to quality and often in families, especially with a registered herd. Quoting again from D. L. Perry: "When the auctioneer or the sale manager has made his opening address and everybody is feeling good, don't let them lead in a three quarter cow that ought to be sold for bologna.

"And again, when someone asks when this cow will calve or how much milk she will give, the owner must not commence to choke up and perhaps have to go to the house and ask his wife about it. Is this cow sound in the udder? 'Oh, yes!'—when a kid five years old would know better. Yes, I say, what we want in an auction sale is to have men come across clean."

If the size of the sale and the quality of the animals warrant, we believe it pays to sell the cattle in a heated tent with chairs for the buyers to sit down and be comfortable. Sometimes a steel shed or a barn floor will serve as well or better than a tent for this purpose.

Present the cattle on a sales platform that they may be observed more readily. A professional leadsman will display them to an advantage. Give each prospective purchaser a simple brochure or catalog so that he may know all the pertinent facts about the cattle prior to the sale. This will help greatly in speeding up the sale because the buyers can select the animals they are interested in and be prepared to bid.

Keep It Moving

A sale organized and sold rapidly so that it can be completed at a reasonable time will net higher returns. As a boy I attended an auction where the auctioneer spent so much time begging for ten cents on the small items on the wagon that nearly everyone had gone home when he finally reached the items that were really important.

We recommend that the cows be brought to the cattle platform with approximately 12 or 13 hours milk in their udder, but certainly no more than this. This will show the prospective buyer what the cow's udder looks like when it is filled, and at the same time will not be overly filled to cause the cow to leak or possibly damage the udder.

Be sure to check with your auctioneer and veterinarian for instructions regarding your herd in preparing for a sale. Ideally this discussion will begin a year in advance of the sale so that, if warranted, your herd may be eligible for interstate shipment. In any event, you will want the veterinarian to check the cows for pregnancy, examine the udders, and advise you on shipping fever inoculations.

Have the machinery clean, greased and lined up according to your auctioneer's instructions. If a tractor has several implements that go with it, the tractor should be sold first in the line and the other implements should immediately follow; the idea being that the successful bidder on the tractor then has a chance to bid on the plows and other items that go with it. If the plows had preceded the tractor, the buyer of the tractor would not have been sure of getting it, and the plows could have sold for much less. Attention to details will add many dollars to your sale total. We recommend painting the tractors if they need it — however, a professional job should be done. The other tools should be cleaned but not painted; all motors should be in condition to start promptly.

Chow!

Plan to have a professional lunchman provide coffee and light refreshments at your sale, particularly if your sale starts in the morning. A local organization may desire to furnish this service for you. It should not cost you anything, and will be a great convenience to the buyers.

If you do not have farm liability insurance which covers an auction you will probably wish your auctioneer to provide you with this insurance for sale day. This auction insurance is available at a very low cost from several different insurance companies.

Auction arrows should be put up on sale morning to help direct buyers to your farm. Adequate parking area should be provided for the cars.

In closing I would like to say work with your auctioneer and his team in a spirit of cooperation. Take the auctioneer into your confidence, and tell him exactly what your financial situation is, especially if

(Continued on page 31)

*Harris Wilcox is a past president of National Auctioneers Association, President of Harris Wilcox, Inc., Sale Managers & Auctioneers, and owner of Craiglen Farm.

Low-cost heavy-yield champ

McCormick® International® 80 gives you more big-combine features than any other 7-footer

Pull an 80 combine into your toughest harvesting job . . . see how it saves grain others lose! Auger platform, undershot feeder, big threshing and separating areas, famous opposed-action cleaning—these and other grain-saving features make the 80 undisputed champion of its class.

The deep-shelf platform gives extra room between cutter bar and auger . . . handles tall, tangled grain or heavy maize heads with ease. Wide, undershot feeder sends a smooth stream of cut grain to the 42-inch-wide cylinder for positive rub-out threshing. Bar-and-wire-grate concave, aggressive beater and finger grate, plus an extra big straw rack give you separating capacity that beats combines costing much more.

You get unexcelled cleaning. Chaffer and shoe extend the full 42-inch width of the separator for cleaning capacity that exceeds that of many 10-foot combines. There is no funneling of grain from wide straw racks onto narrow sieves . . . no grain-wasting, efficiency-robbing pileup along sides of the cleaning shoe. Famous IH opposed-action cleaning prevents straw bridging between sieves. Precise wind control lets you match crop needs. Extra big, top-driven elevators assure fast, gentle handling of heaviest yields.

Profit now with an Early Trader's Bonus . . . profit later with the grain-savingest combining you've ever done. See great new self-propelleds at your IH dealer, too.



Deep-shelf platform handles heavy milo with ease. And it saves more grain in short, thin crops too, because the reel can be set closer to the cutter bar.



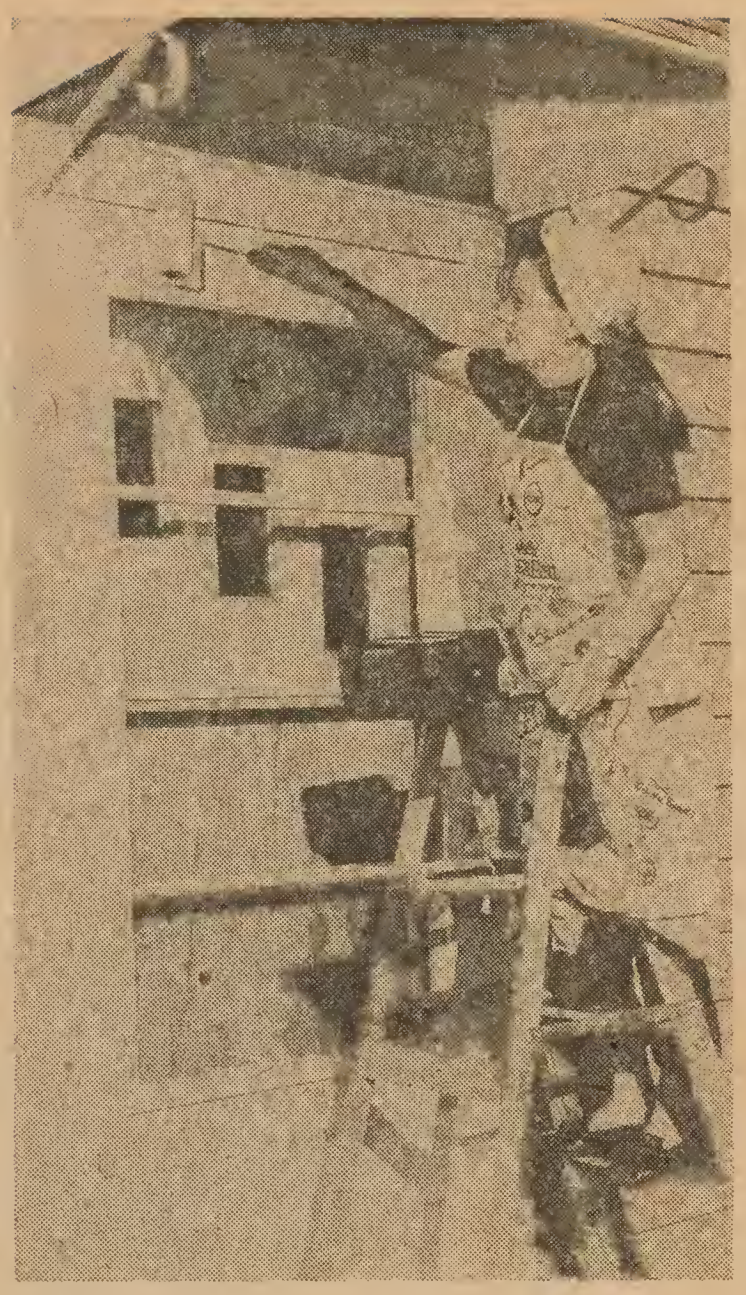
INTERNATIONAL HARVESTER

World's largest manufacturer of farm equipment

The best equipment for painting is not a brush — not a roller — not a sprayer—but a willing wife attached to either of them!

Latest Painting Pointers

Before you haul off and grab that paintbrush, check this advice from the National Paint, Varnish, and Lacquer Association.



YOUR wooden buildings need regular painting for two reasons: to protect them from the weather and to make them more attractive to you and your friends. Sure, the assessors may be tempted to sock you with a little higher valuation—but the benefits of painting are worth that chance.

Get Set!

If the old paint is only faded, dirty and chalking, surface preparation is easy; just brush off the dirt or chalk with an old brush. If the surface is very dirty, it's a good idea to wash it with a detergent and rinse with clear water. Remove rust marks around nail heads with sandpaper or steel wool and prime with a rust resistant primer.

Loose nails should be countersunk, primed, and puttied—even better is to replace them with rust-proof nails. Also replace any cracked or broken siding and renail all loose siding.

Check the putty on all windows and replace any that's cracked or missing. Always prime the sash with house paint primer before applying the putty; this will prevent the oil in the putty from soaking into the wood and leaving the putty dry and crumbly.

At the same time, see whether it is necessary to renew caulking compound in any gaps in the surface to keep cold, dirt, and insects out and heat in. Places that should be checked include all butt joints of siding and areas where two dissimilar materials meet such as wood siding adjoining brick or masonry, siding meeting metal, and the like. It is also important to caulk around the base of any pillars and columns and around window and door framing and places where piping, vents, or utilities pass through the walls.

Remove loose, flaking and blistered paint with a wire brush and scraper. When blistering, cracking or alligatoring is extensive, the old film should be removed to the bare wood and the edges of the sound paint smoothed with sandpaper. Bare wood should be primed with house paint primer, preferably made by the manufacturer of the finish coat you will be using.

Prevent Blistering

If blistering is extensive, it is important that the cause be investigated. Chances are that house blistering has been caused by moisture within the building by washing, cooking, bathing, laundering, mopping and the like. Washers and driers should be vented to the outside to permit the moisture vapor to escape. Bathroom windows should be opened after showering or bathing for the same reason. If this moisture is not given a means of escaping, it will enter the walls of the room, pass through to the siding and then be drawn out by the spring and summer sun and cause blistering of the paint.

Areas under the eaves and in other protected places may still be in fine condition and may not require painting if the same color is being used. If a new color scheme is to be applied, these surfaces will probably be too glossy and slick for good adherence of the new paint. Sand the surface lightly to remove the gloss and provide better "tooth" for the new coating.

Growths of mildew and other molds must be removed before the surface is repainted. Simply painting over mildew is a waste of time, paint, and money. The easiest way to remove mildew is to wash the area with a solution of sodium hypochlorite (Chlorox or Purex) made by adding 1½ cups of the bleach to a gallon of water. Brush or spray the solution on the mildew, allow to remain for at least five minutes, then rinse with clean water. Another treatment is to wash the area with a solution of three heaping tablespoons of trisodium phosphate to a gallon of water. Familiar products containing this chemical are Solifax, Oakite, or Spic and Span. Be sure to rinse clean.

This treatment will not, however, prevent future growths; if climatic conditions are damp and warm, a new set of mold spores will start growing again. The best solution is to use a paint especially formulated to resist mold growth or add a mildewcide to the paint you are using.

Shake It

The pigment in a new can of paint or in a can that has been stored for a long time will usually have settled to the bottom of the container. The paint, of course, must be thoroughly mixed. Most paint dealers have mechanical shakers that do this job; where such a device is not available, use elbow grease.

Reading the label and any accompanying instructions is vital for a satisfactory paint job. The manufacturer knows more about his product than anyone else, and you should follow the directions he gives. This is particularly important when it comes to thinning the paint. Modern paints are delicately balanced chemical combinations, and just adding linseed oil or thinner at random can ruin the paint.

Good brushes or rollers will help make the job easier and better. You'll probably need three different size brushes—3½ or 4-inch brush for large areas, a 2½ or 3-inch brush for shutters and trim, and a 1 or 1½-inch oval brush or slanting sash tool for painting sash and molding. Rollers can be used on siding, too, and will do the job faster. Even quicker than the roller is portable spray equipment.

You have a choice of several different kinds of paint for your house. On barns and other outbuildings you can, if you want, use the specially formulated barn paints that are available in a limited range of colors and are cheaper than quality house paint. But if you are particular about the appearance of your barn, you should use regular house paint. Avoid paints with a price so low that it seems too good to be true—they may be too cheap to be good.

Types of Paint

The most familiar type of house paint is, of course, linseed oil paint, but you can also use an oil-modified alkyd based paint, which is preferred for deeper colors, or an alkyd paint which dries to a flat, rather than a gloss finish. For the best choice for your buildings, discuss the selection with your dealer or with neighbors who have had satisfactory jobs under similar exposures.

Newest house paint on the market is the water-thinned or latex house paint. This has the advantage of drying within half an hour, which means that a second coat can be applied without moving scaffolding, but the chief advantage of water-thinned house paint lies in the fact that it is more blister-resistant than any other type. In most cases, these paints require the special primer made by the manufacturer and two coats of latex are almost always advised. Read label instructions and accompanying literature carefully before buying this type paint to be sure that it is suitable for your situation.

The next question is how many coats of paint will be needed. Where the old surface is in good condition, one coat of new paint should be sufficient. This should be one of the so-called one-coat house paints. If the old paint is in poor condition, two coats are generally called for, one of which can be a primer. In the case of new wood or extremely worn old paint, the recommendation is for a coat of house paint primer, followed by two coats of house paint.

Most modern white house paints are self-cleaning and are designed to wear away by slow chalking over their lifetime. The chalk washes away with the rains and carries the dirt along with it. Where there is brickwork or masonry below wooden sections, you should ask your dealer for a non-chalking paint. The chalking type will stain the masonry or bricks.

Go!

For best results the paint should be applied in clear, dry weather when the temperature is between 50 and 80 degrees. Avoid painting in the direct sun. Paint the west side during the morning, the east and south in the afternoon, so that the sun will not dry the paint too fast and so you'll sweat less.

Most right-handed people will find it easier to begin at an upper right hand corner and move to the left as they paint. The safest and most convenient way to paint is from a scaffold firmly suspended from solidly placed ladders. This will enable you to paint across the entire side of the building as you work downward. Try to finish a morning's or day's work at a corner or at a window so that laps and streaks will not occur even if several days intervene because of weather.

If you use a brush, dip it into the paint for about only one-third the length of the bristles.

(Continued on Page 29)



Now, chop a 5-ton load in only 6 minutes!

Try this cost-cutting capacity giant in your own field...FREE!

Write IH to be first in your area to profit from a new McCormick® International® 50 Field Harvester

"Fastest chopper we've ever seen!" say farmers, from Texas to Canada, who tested pre-production models. They also praise power-saving direct drives, and the compact design which gives the No. 50 massive strength without needless weight and clumsy bulk. To quickly introduce these new advances to key farmers, International Harvester invites you to try this new No. 50 Field Harvester on your own farm, without cost or obligation.

New cutter bar—almost 8 feet wide—coupled with an easy-running, cylinder-type, 9-knife cutter head, gives the big 50 its enormous appetite in heavy hay. It chops a record 65 tons per hour with new 2-row corn unit. One man can switch harvesting units in less than 10 minutes. Fast-feeding windrow pickup available.

Sharpen knives without removing them! Dial the hitch, swivel the spout, and reverse the feeding mechanism right from the tractor seat. Chop forage finer than with any other field harvester . . . cut shorter than ¼" inch for silage that packs tighter, and keeps better.

Get proof you can slash feed costs with a giant-capacity 50 Field Harvester! Write International Harvester, 180 North Michigan Avenue, Chicago 1, Illinois, to try one of the first 50's sent to your area.

Mail Coupon Today!

I'd like to try the giant capacity of a 50 Chopper on my farm, without cost or obligation.

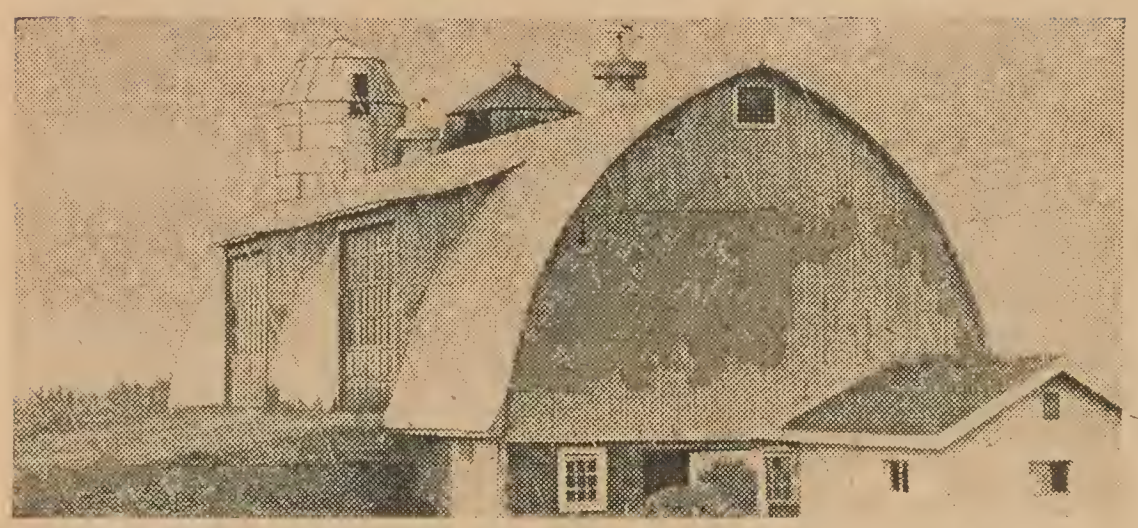
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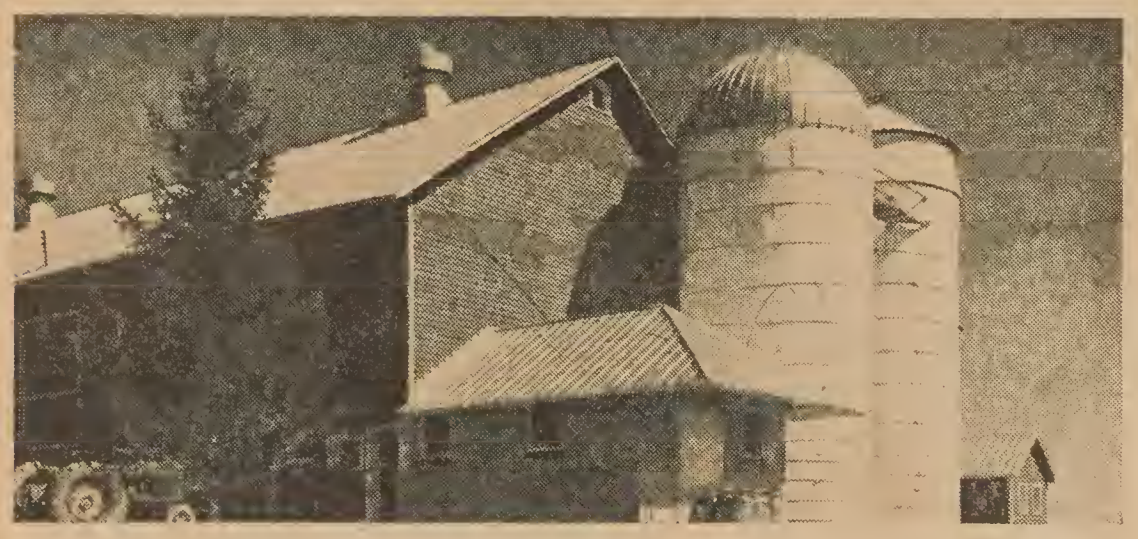
Town State

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180 North Michigan Avenue
Chicago 1, Illinois

What other type of roofing



is so strong and hurricane-proof?



so handsome and corrosion-resistant?



so easy and economical to install?



Dollar for dollar you just can't beat

Galvanized Steel Roofing

made by BETHLEHEM

Galvanized Steel

for strength
... economy
... versatility

BETHLEHEM STEEL

AA's Farm Dollar Guide

NEW YORK STATE LEGISLATURE passed bill restoring milk dating in New York City. Dairymen will resent, claiming no real need has been proved. Estimated cost to dairymen because of lower consumption $1 million a year.

UNLESS CONGRESS GRANTS EXTENSION of present $3.40 dairy product support rate, supports will go to $3.11 on April 1. The House Committee already has turned down an extension.

KANSAS STATE UNIVERSITY SAYS: "To estimate tractor fuel use per hour, multiply belt horsepower rating by .7, then divide by 13 for diesels, 10 for gasoline, and 8 for LP gas tractors."

CONGRESS IS BEING ASKED to pass enabling legislation which will include quotas for potato growers. If the legislation is passed, the Secretary of Agriculture will then have the responsibility of setting up a specific acreage quota program and presenting it to growers for a vote. If two-thirds of those voting approve the program, it would go into effect.

Meantime, hearings are being held on a proposed national marketing order for potatoes. If the order is presented as proposed, two-thirds of growers voting must approve, excluding those with two acres or less, who are not affected. The proposal could regulate volume and grade bought by handlers and sold by producers.

TO INCREASE AMOUNT OF GRAIN a cow can eat while being milked, grind coarse; use pellets if available; wet grain (using 1.5 lbs. water for each pound of feed); feed part of grain at silage bunk; figure amount per cow that lowest producer needs, then feed balance according to production during milking.

JANUARY U. S. EGG TYPE-CHICK PRODUCTION was 8% below January '61; BROILER-TYPE CHICKS were up 3%. February hatch of broiler and egg-type were both somewhat below February '61.

SELL DAIRY COW CULLS EARLY. Returns from milk unlikely to offset seasonal decline in beef prices.

IN CHOOSING CORN VARIETIES, pick those that mature in a season a little shorter than average for your area. This is especially true for corn for grain, but holds true also for silage corn.

The Song of the Lazy Farmer



FARM MAGAZINES are filled these days with articles 'bout how it pays to throw away your scoop and fork and learn to make beef, milk and pork with gadgets so you do not need to lift a single pound of feed. "Materials handling" is the rage, there's something on 'most ev'ry page 'bout how to sleep 'til way past dawn by substituting brains for brawn. What you're supposed to do is see if you can move mechanic'ly your feed and milk and even hay. To clean the cow barn ev'ry day, a gutter cleaner switch gets shut and outside goes the you-know-what.

My neighbor has the whole shebang, his place is fitted with a gang of augers, pipes, conveyors, chutes; he could arise when fancy suits and push a button labelled "chores" and hardly venture out-of-doors. His blessings, though, are not unmixed, his troubles haven't all been fixed, 'cause while his great efficiency has helped him economic'ly, his spare time leaves him in a stew, he doesn't have enough to do. He has no hobbies and don't know just how to learn to take things slow; I s'pose I ought to help the oaf by teaching him the way to loaf.

From International—a new concept in truck engineering

THE LOADSTAR® LINE

Specifically designed for the medium and light-heavyweight class!

This new LOADSTAR Line combines the short-dimension advantages of cab-forward design—only 91¾-in. from bumper to back of cab—with the cab comfort and easy service accessibility of a conventional truck.

All-truck and all-new, these INTERNATIONAL models are the first in their weight class without any relationship to passenger car or light-duty truck styling.

Check on these points for yourself—see and drive a LOADSTAR model now. There's one at your nearest INTERNATIONAL Truck Dealer or Branch. International Harvester Company, Chicago, Illinois.

12 ENGINE CHOICES

V-8's and 6's, gasoline, diesel or LPG . . . with a new low-cost diesel—131 hp. and lightweight!

easy to maneuver

New wide-track front axle improves ride stability ■ 40° turning angle, up to 7-ft. shorter turning circle than previous models.

NEW CAB COMFORT CONVENIENCE

Wide running board ■ Big, wide-swinging doors ■ Low cab floor height ■ Plenty of head and leg room ■ Full-width, chair-high seat ■ "Quick-glance" instrument panel.

LONGER LIFE

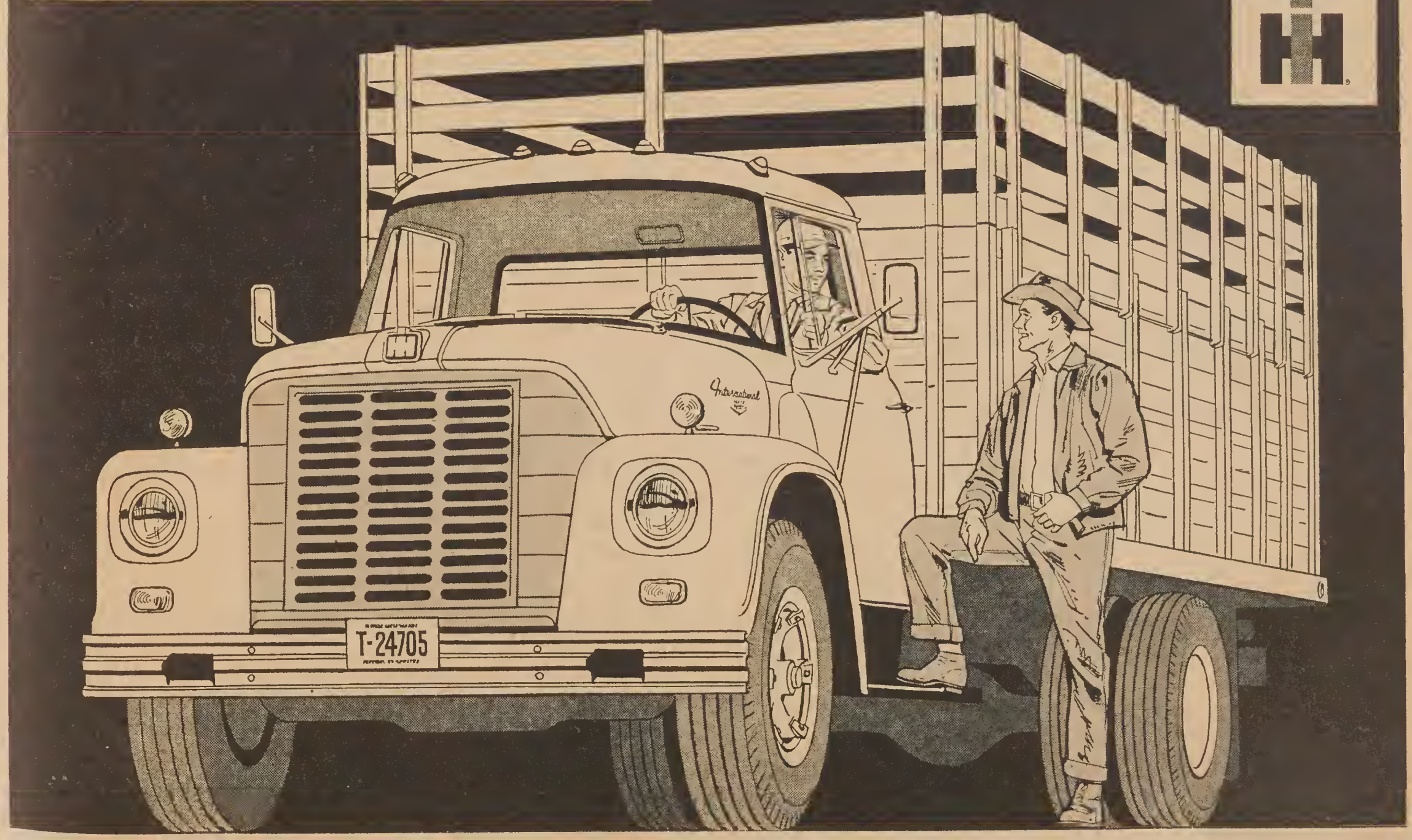
Frame channels full-depth from front bumper to rear springs ■ Cab structure and front-end sheet metal joined in single, high-strength assembly ■ Wider front springs.

easier maintenance

Low wide-spread fenders and hood provide wide-open engine compartment ■ Radiator, oil filler, dipstick, battery, air cleaner are easy to reach ■ Fuses in glove box.

INTERNATIONAL® TRUCKS

WORLD'S MOST COMPLETE LINE





Mr. Earl talking over high feeding value of his silage with GLF Crop Specialist Strat McCargo. This silage corn measured 17,770 lbs. of TDN to the acre as it was put into the silo.

GLF Weed Killer Helped Grow This High TDN Silage

Twenty-nine tons/acre. Dairyman James C. Earl of Wells Bridge, N.Y., is one of the winners of the GLF 100-20 Corn Club trials. Mr. Earl exceeded the 20 ton/acre goal for silage corn by producing 29 tons/acre. He also went over the top on his grain yields—157 bu./acre.

Jim Earl got his high yields by applying GLF Fertilizer at the rate determined by his soil tests . . . plus the other 100-20 Corn Club practices.

Atrazine sprayed at 2½ lbs./acre controlled the grass in his corn fields. "I had to do no early cultivating," Mr. Earl says, "which freed me at the time when I really needed to be free for my haying."

Mr. Earl's 50 milking Holsteins sustain a herd average of almost 15,000 lbs. of milk. He follows the crop practices of the GLF 5-Star Forage Plan because . . .

"I can't afford not to lime, fertilize, and spray with the most effective weed and insect controls. To stay in the milk business, I've got to get the highest feeding value for my cows from every acre I plant."

For all crop materials, see your GLF crop advisor . . . for soil tests, lime, fertilizers and spreading services . . . for advice on any crop problem . . . and for an insect and weed control program to fit your crops, and your farm.

Get the most TDN from your fields. It pays off in higher milk checks.



Cooperative GLF Exchange, Inc.

5-STAR FORAGE SERVICE

Family Poultry Farm

This poultry operation is managed on the basis of cost accounts.

by Hugh Cosline



Standing: Sharon (16); Dana, Jr. (15); sitting, in front of Mr. and Mrs. Poyer, left to right: Elizabeth (11); Joe (9); Russell (5); Helen (12). Trophies were won by Dana in pistol marksmanship competition.

DANA POYER of Tompkins County, N. Y., said, "It's the best move I ever made." He was speaking of his decision to keep cost accounts which have given him the facts on which to make the right management decisions.

"Under today's conditions, management makes the difference between red ink and black ink," he continued, "and how can I make the right decisions unless I have the facts?"

Since 1944 Dana has been in partnership with his dad, Floyd, on a poultry and crop farm of around 150 acres. At present Floyd and his wife spend winters in Florida, and go and come as they please. But Floyd finds plenty to keep him busy when he is home.

One decision which Dana made as a result of cost accounts was to discontinue growing corn, and to cut down on other crops. The returns per hour were good, but too few hours were spent to make much of a total, and planting and harvesting make an undesirable labor peak. So Dana sold some of his crop equipment and used the money to buy automatic feeders for his 6,000 hens, his principal source of income.

Another important decision made last summer was to hire his pullets raised. Again, the figures pointed to death losses above average, especially from leukosis. Because the farm area is limited, and because Dana is often alone and must travel between brooder house and laying houses, he decided he could not control disease, therefore pullets should be reared off the farm.

Always, controlling production costs is a problem. Every year Dana gets figures from Cornell showing averages of many poultrymen on size of flock, eggs sold per hen, hens kept per man, and pounds of feed per dozen eggs. By comparing these figures with his own, weak spots can be detected and corrected.

For example, the old poultry houses require more labor per hen than new houses completely mechanized. But new houses cost money, and it's a question of balancing costs against labor saved.

Dana's decision was to mechanize as much as was practical in the houses he had. Automatic feeders have already been mentioned. Running water is also available, and feed is blown into a bulk bin on the upper floor of the four-story house. One part of this floor is used to store straw (barley preferred) which is taken there by a moveable elevator.

Grading, cleaning and packing eggs is one of the big poultry chores, one which is complicated on the Poyer farm because a good part of the eggs need special attention because they are sold to the nearby Babcock Hatchery.

At present the egg room is in the basement of Floyd's home, but Dana feels it is inadequate. For one thing, it is some distance from the laying houses; also, the humidity is too low. A firm decision on exactly what to do is now being made.

Still another place where figures pointed the way concerned the cost of operating trucks. It was above average, but costs were pulled down by junking one small truck and making more business use of the family car.

Profit comes from gross income minus costs, and a few cents added to the price received can loom large in net profits. For some time, eggs have been sold at retail on the "honor system." Prices are posted, and the customers make their own change.

In September of 1961 a refrigerated display case was purchased and sales have jumped. A sizable volume of eggs is delivered to a store in Trumansburg, and eggs are also furnished to a retailer who has a route. Because eggs for these customers are sometimes short at certain seasons, due to hatchery demands, Dana buys some eggs to supply them.

Management decisions can be split into current and long-time. What about the future? The oldest of the six Poyer children is Sharon, who is 16. The childrens' education is one of Dana and Shirley's chief goals, and as of now the boys like hens, and may wish to enter into a partnership. But the present size is obviously too small to return a good income for more than one family. In fact, Dana did have a hired man, but when he left he decided to rent the tenant house and handle the job with the help of the children and some day help. And let's not forget the invaluable help of Shirley, who keeps the accounts and works in the egg room.

If the boys elect to stay at home there will be the question of new henhouses, for more volume and better efficieney. How many and what type? Single or multiple story? Cage or floor? And so on. But the fact being emphasized here is that for every decision facts and figures will be available from the records.

Speaking of buildings, Dana now has plans for insulating the old houses and installing fans for ventilation. This will permit more hens in the same area, hens that can be cared for with practically no additional help.

Hobbies may have little to do with management decisions, yet a clear head resulting from recreation can be important. Anyway, Dana has been State champion in pistol shooting, and Shirley has won distinction as a cook, participating in 1953 in the finals of the Pillsbury baking contest. Near the home of the younger Poyers is a farm pond not only for fire protection but for swimming and skating. The older boys and girls are 4-H Club members, and Shirley is leader of a group of Campfire girls.

Every farmer keeps some accounts. He must in order to make his income tax returns. But the kind of records, and particularly the use made of them, varies widely.

One of the most valuable uses is in making management decisions. These days, hard physical labor does not guarantee success. Wrong decisions are more costly than they were in the past, and right decisions can be more rewarding. Accurate figures bring right decisions.



The whole family helps; Sharon does her stint at grading eggs.

Steps in Making a Management Decision

1. Locate the trouble spot (problem)
2. What is your objective? (goal)
3. Size up what you have to work with. (resources)
4. Look for various ways to solve the problem. (alternatives)
5. Consider probable results of each way. (consequences)
6. Compare the expected results. (evaluate)
7. Select way best suited to your situation. (decision)

How do YOU measure up as a manager?



—Photo courtesy Du Pont

Bearing branches and bare root area —chemicals are important for both.

Herbicides For Orchards

By O. F. CURTIS, JR.*

HERBICIDE sprays can now serve to control most of the weeds and grasses near the trunks of your fruit trees. Research over the years shows that tree growth rates are generally faster when orchard weeds are controlled. Also, the trend for fruiting during the early years shows herbicide treatments to be clearly ahead of cultivation. Mouse damage is much reduced by removing dense grass cover.

None Perfect

While promising control of most weeds, I must point out that no herbicide spray will kill **all** weeds in **all** blocks. The herbicide or the mixture of herbicides in one block will fail more or less in some other situations.

This follows from the fact that the usable herbicides are "selective," that is, they injure some species of plants far more than others. It is unlikely that any one herbicide mixture applied in the spring of the year could **kill** all other vegetation without having some undesirable effect on your apple trees. More than one or two materials are necessary to control all the various types of unwanted vegetation, and some must be applied at different times than others.

As if this were not complication enough, we must face the fact that herbicides sprayed on the weeds under the bearing tree come under the same Food and Drug regulations that control the pesticides you spray on the apple fruit and foliage. Exhaustive tests and the costly procedure for clearance is required for each material on each crop.

Herbicides that control orchard weeds can be roughly divided into two groups. One includes those that act through the soil due to root absorption by the weeds. Applied in the spring, they kill many shallow rooted weeds that started the previous fall; they will also control most summer weeds such as ragweed, pigweeds, and summer grasses that would otherwise start from seed during the next few months. Karmex (80% diuron) at 2 to 4 pounds per acre, or Simazine (80%) at 2 to 5 pounds per acre, will do this. If previous cultivation has removed established deep-rooted weeds, a spring application of either of these can control weeds for a full growing season. However, neither one will do much against quackgrass and many other perennial weeds.

The other group of herbicides acts primarily through the foliage of the growing weeds. One of them is Dowpon (85% dalapon) which is effective on quackgrass and many other grass weeds. Applied when the grass has developed some green foliage in the spring, but before it is more than 8 to 10 inches tall, Dowpon will keep the grass under control for nearly a full season.

Dowpon was the first herbicide cleared for use under **bearing** apple trees; this was a welcome clearance, for the grasses are a major competitor to tree growth and the principal cover for field mice. Now either Karmex or Simazine can be added to the Dowpon spray, for improved grass control and to control the seedling weeds that might otherwise move in where the grass was suppressed. A combination of Dowpon plus **either** Karmex or Simazine is recommended for bearing apple orchards.

Dowpon has been used at 10 pounds per acre safely in hundreds of situations, but cases of injury have been reported. These seem to involve light soils, heavy rainfall after application, lack of weed cover to intercept the spray, and some varietal sensitivity (notably in Idared). Safety can be improved by using a lower rate of 5 pounds per acre. This alone may suffice, though the only visible evidence of its action over the first two or three weeks will be lack of new growth as compared with untreated grass. If the grass is still growing three weeks after application, a second application at the 5-pound rate can be made.

Combination Effective

Amitrole is another member of the foliage-active herbicides. When added to Simazine or Karmex in a spring spray it will provide grass control approaching that given by Dowpon, plus control of some other established weeds. An appropriate application would be 4 to 8 pounds of the 50% product (Weedazol or Amino Triazole) per acre. A liquid formulation, "Amitrol T," applied at one gallon per acre has proven particularly effective on quackgrass. A pre-mixed combination of Amitrole and Simazine is available under the name of "Amizine."

Coverage by sprays applied at 100 gallons per acre.

Dimensions of sprayed plot		Coverage by spray	
Square plot	Band around trunk	Number of trees per gallon	Pints for one tree
6 x 6 feet	3 feet wide	12	⅔
8 x 8 feet	4 feet wide	7	1¼
12 x 12 feet	6 feet wide	3	2⅔

The combination of Amitrole with either Simazinc or Karmex has seemed an effective and safe weed killer under young trees of apple, pear, cherry, and peach. I would urge, however, that this be used only under non-bearing trees. You can remember what the cranberry industry suffered when Amitrole was wrongly used by a few ignorant or cynical growers. Even the suspicion that it is being used under bearing trees, legally or not, could bring you bad publicity that would completely overwhelm any deserved recognition for the healthfulness of your fruit products.

Herbicide rates given in this article are expressed as pounds per acre. These could read pounds per 100 gallons **provided** the spray is applied at the rate of 100 gallons per acre of treated ground area. You will be annoyed by the need to check and control the gallonage of spray, as I am when I spray around my own garden, but it is essential to safe, effective use of herbicides. The volume of spray applied per unit area is fully as important as the spray strength.

Some growers use a fixed boom to spray a swath down each side of a row, or cut the spray on only as they reach each tree. Information on proper nozzle size and calibration for such an arrangement can be had from dealers. For example, traveling at 2 miles per hour with a pressure of 40 pounds, Teejet 8006 nozzle tips spaced 18 inches apart on the boom will give about 100 gallons per acre.

A hand gun, carried afoot or riding a trailer, is sometimes used to spray a swath on each side of the tree row. Traveling at 2 miles per hour, the gun will spray at 100 gallons per acre if it delivers 0.4 gallons per minute for each foot of swath width. Thus, if aimed to treat a swath three feet wide, the gun should deliver 1.2 gallons per minute.

Another type of calibration can be had by using the figures of Table 1. Note that to treat a plot extending three feet out from the trunk (or a 6 x 6 foot square under a young tree) at 100 gallons per acre one gallon should treat 12 trees; this amounts to ⅔ pint for one tree. The time required for the gun to deliver ⅔ pint can be clocked or counted, then this same time used for spraying each tree. If the time is less than one second, as might happen if you have resurrected an old hydraulic gun or boom, you should obviously shift to a gun with less capacity.

The target of 100 gallons per acre, or the volume per tree shown in the table need not—and probably will not be met precisely. But some such target of a definite area covered by a measured volume of spray is needed. The aim to "wet the weeds" can result in applications ranging from 1/5 to 10 times the suggested amount —the results from either extreme will not be favorable.

All of the mentioned methods of applying the sprays, and of controlling the dosage, have been used successfully by growers in New York State.

Equipment

Various weed-spray pumps have served growers satisfactorily, including the nylon roller (8-roller preferred), diaphragm, and piston

(Continued on Page 29)

*Agricultural Experiment Station, Geneva, N. Y.



HAY! cut and cured in 1 less day with a NEW IDEA Hay Conditioner!

Now you can do the whole job — mow, rake, bale and store your hay at least one full day sooner than before. So, there's less chance of loss due to rain, and you get more palatable, higher quality hay.

The upper roll on a NEW IDEA Hay Conditioner is corded, resilient rubber that gives full-width conditioning — uniformly — without excessive leaf loss. Hay feeds through positively, gently — thoroughly conditioning without breaking stems.

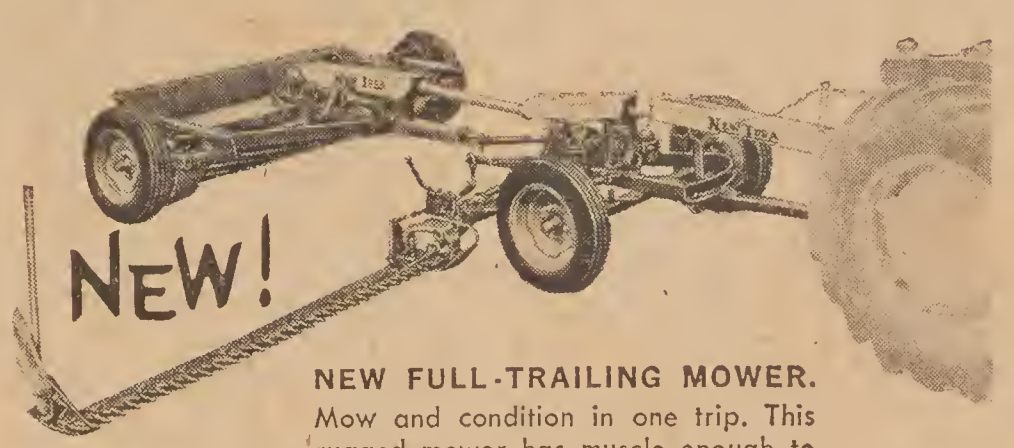
The exclusive Free-Flow design is next to impossible to plug. The steel pickup roll has tapered flutes that make it virtually plug-free. And because the *steel* roll is on the bottom, it kicks large rocks out ahead and lets small ones feed harmlessly through without damaging either roll.

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NEW FULL-TRAILING MOWER. Mow and condition in one trip. This rugged mower has muscle enough to tote any hay conditioner in tandem! Has the exclusive PTO-powered, mechanically-lifted cutter bar.

NEW IDEA, Box 322 Coldwater, Ohio

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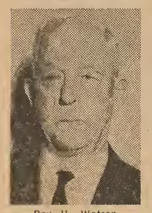
TOWN_____ STATE_____

Personal Farm Experience

How We Feed

We feed only the steers and heifers that we raise from our purebred Angus herd, which numbers about 50 breeding cows. Most of the calves are born between March 15 and June 15.

The calves are with their mothers on pasture all summer. About September 1 they are allowed creep feeding, using only whole oats. The last of November they are weaned, the heifers put in one pen, the steers in another. We continue feeding whole oats twice daily, approximately what they will clean up and be hungry for the next feed. If they do not clean it up, we cut back on grain and hay.


Ray H. Watson

The hay fed is alfalfa and brome, or alfalfa-clover-timothy mix. We do not feed second cutting at any time. We continue with whole oats for two or three weeks after weaning, then begin to add ear corn ground to a 5/16 fineness until February 1, when it should be half and half. After that we continue to increase the corncob meal slowly and decrease the oats to not less than 20% of the mixture. In later feeding we grind the oats through the same screen as corncob. All of this time they receive mixed hay.

By January 15 we start feeding as much corn silage as they will clean up, as long as it lasts. These calves are kept in dry lot until finished. When we start decreasing the oats, oil meal is added at the rate of 1%-2%, increasing in later feedings to 4%-5%.

These calves are marketed usually just following July 4, and have an average weight of 950-1050 lbs. for steers, and for heifers 100-150 lbs. less.

We always feed so that they come to the feed bunk with an eagerness for their food, and clean up each ration. No stilbestrol or other growth stimulants are used. Salt and minerals are fed free choice.—*Ray H. Watson, Clyde, N. Y.*

Caged Layers

We have 12,000 hens in cages, 20 to a cage, with .7 square foot of floor space per hen.

A year ago in January our poultry house burned with 6,500 hens. It was an old remodeled dairy barn with five floors. For some time we had been thinking that we should keep more hens, but although we had studied all the alternatives we could think of, we hadn't decided on anything definite. We had put in some insulation, and were thinking seriously about automatic feeders, but aside from that had decided that it wasn't good business to put more money into these buildings.

The fire seemed like a catastrophe at the time, but I am sure that ten years from now I shall be ahead of the game.

We lost our old hens in the fire, but fortunately didn't lose the pullets. We filled the house about half full in June and finished up in November. At present we are not washing and grading eggs as we did previously, and find that we can take care of egg production from 12,000 hens with about the same amount of labor that we previously used for the 6,500. Another man and myself do the work, and either of us can get away for a day or two with the other handling the situation.

Here are the advantages of the new poultry house:

Inasmuch as pullets were saved, we put the same strain of hens into the pens, yet the mortality has been just about half as much as last year, and added to that, the egg production is 12% to 15% better. At least part of this is due to the fact that the temperature is practically constant, varying not over 4%, which makes for far better control of the environment.—*Walter Spencer, R.D. 2, Homer, N. Y.*

Grass and Oats for Silage

I used to raise corn silage, but haven't raised any for over twenty years now, as we have more hay than we can feed. Also, we raise a lot of alfalfa and I like to put the first cutting in the silo, so as to get plenty of second and third cutting. Corn silage seems to be coming back into use more and more and would like to have some again, but I have only one upright silo in the milking barn.

We put up a self-feeding trench silo that holds about one hundred fifty tons for the heifers and dry cows, and we fill this with alfalfa and grass. The dry cows and heifers run loose here all winter. It saves both grain and labor, and is one of the best things I have done.

I have read with interest the articles on low moisture grass silage but haven't dared to try it. Also we fill both silos the last week in May each year, and it is apt not to be very easy to dry alfalfa then.

I have always used some oat silage. We always use oats as a nurse crop with the new seedings in the spring. These oats are used to refill the upright silo around the last week in June. Therefore, we have to feed the oat silage first—and would say there is only a slight difference between that and the alfalfa silage. We use hominy with all the grass and oat silage, around forty pounds to the ton. The oat silage probably isn't quite as good as the alfalfa but only a slight difference.—*V. D. Mudgett, Sterling Junction, Mass.*



HAYING'S **ONE TRIP SHORTER** THIS YEAR...

Because the latest Oliver 62 Baler does two big jobs in one run.

With the new bale thrower, the Oliver 62 baler bales and loads the wagon . . . in one operation. Think of it. You no longer have to make a special trip through the field—using two men—to pick up the finished bales. The savings in time, labor and fuel costs are obvious. And you no longer have bales in the field soaking up rain . . . bales which will later become hotbeds of mold. This saving in feed value is worth considering.

Look at that bale in flight. It takes quite a toss to throw a sixty pound, 31-inch bale into the wagon. The six high-speed throwing rollers are kind to bales. They never lay a cleated finger on the twine or wire ties. And the thrower swings with the wagon tongue so that bales land in the wagon even on sharp turns.

The 62 baler is well known for its baling speed—from 350 to 400 bales an hour. Oliver's patented Roto-Flo Feeder makes this possible. This system provides continuous feeding . . . not intermittent forking. You can be sure that every bale is equal in density and full at the top. And with pivot-balanced PTO, you're working even on square corners, picking up all the hay.

One of the other advantages Oliver's 62 Baler offers you is flexibility. You may prefer to buy your 62 baler without the thrower. That's all right. If you later decide you want to bale and load in one operation, just add the number 15 bale thrower. Installation is simple and requires no modifications. (Twine and wire-tie units are interchangeable, too.)

Ask your Oliver dealer to tell you more about the 62 baler and 15 bale thrower—the team that can make haying one trip shorter for you this year. Oliver Corporation, Chicago 6, Ill.

OLIVER

Look for this sign, new symbol of prompt, dependable service and genuine Oliver parts.

Cow Psychology

A certain amount of psychology is needed to get results with all females, including cows.

Take the heifer that freshens and finds herself in the milking herd, scared to death of that strange "reptile" the milking machine. She is unable to let down her milk—and the thing hurts—so she kicks. If you bring out her calf she forgets her problems. "Mother Love" takes over and the milk goes into the machine, except for the bonus the calf gets from one hind teat.

This often works. But we had one heifer who responded so enthusiastically to mother love that she had a complete relapse when the calf went to the butcher. Even hormone injections failed in her case to induce "let down" response to the milking machine.

We are old-fashioned enough to weigh every pail of milk as a means of finding and solving problems before they become serious. We had a cow named Jean who had wide variations in production from one milking to another. We then found that she milked out better if we put the machine on her while she ate her grain. This worked fine until she freshened and milked over 80 pounds a day. We had a 40-pound milker pail, and to prevent overflowing we emptied the milker and put it back on the cow. Invariably she shut off her let-down and gave no more milk. We then found that another scoop of grain was what she needed just at that time to be in the psychological mood to let down the second pail of milk. We did this regularly from then on, with good results.

One heifer had a psychological allergy to the cow stable. When she freshened her stall was waiting, but she preferred to wait outside. After a run-around in the barnyard we almost had to carry her in; the next day the same thing. The third day, after three quick trips around the barnyard we were tired, but she was fresh as a daisy—so we quit. Pretty soon she looked in the stable door. We ignored her. When she was quite sure we were not looking she took her stall—just wanted to play hard to get!

Calves will drink almost anything if it is warm and wet. One time a pail of warm water and lots of detergent got within reach of a young calf. The pail was carefully emptied when we discovered a full calf trying to burp and blat and bubble all at the same time! The calf lived, but it had quite a setback. A bull calf would know the difference between milk and detergent—or would he?

—*Bob Greig, Red Hook, N. Y.*

Barn Change

We operate 288 acres of land, most of it Valois gravelly loam, with 225 acres tillable. Our 62 cows are stanchioned in a conventional barn, but dry cattle and young stock are loose housed.

We used to have 40 milkers, but could see that this meant we weren't using our land fully. The decision was made to expand—but with the same basic two-man labor force. The question was how to go about it.

Since we had a good barn, but a poor milkhouse, we put an eight stall herringbone milking parlor plus a holding area on the south side of the existing barn. Before pushing the button on this change, however, we considered a milk transfer system in the setup we already had. It would have been the lowest in cost of all the possibilities, but it wouldn't lower our total work load very much. We also considered an around-the-barn pipeline, but concluded it was too high in cost when considering that it didn't give the labor efficiency of a parlor.

The parlor, we felt, brought the cow to the man and gave the highest labor efficiency at about the same cost as an around-the-barn pipeline. Added to this is the fact that it gives the maximum operator comfort. However, one parlor disadvantage is that it is a two-man system during the stabling period. One man milks with 4 units; the second man lets cows out of stanchions into the holding area, feeds and beds the herd, and cares for calves.

During the summer, cows never go into the barn and one man handles the entire milking job, allowing the other to stay in the field. Whatever the season, the man in the pit can milk 40 cows per hour, or 35 if most of them are in early stages of lactation. Greater production per man was our major goal in making the change. — *Ralph and Ronald Space, Freeville, N. Y.*



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News and Views from New York and Penn.



Mrs. Kenneth Spraker holds the Bradburne Trophy and, holding the sheep, are (l. to r.) Dave McDowell, Mercer, Pa.; Don Cook, Trumansburg, N. Y.; and Manley Heeg, Holcomb, N. Y.

Winner — The folks at Brooklea Farm at Bath, New York, are mighty proud of the Bradburne Trophy awarded at the last International Livestock Exposition at Chicago. This contest is open to all breeds and is scored on the basis of 60 percent for the condition of the fleece and 40 percent for fitting. S. Dewitt Stewart and daughter Mrs. Kenneth Spraker are operators of Brooklea Farm.

The prize-winning group included a yearling ram and two yearling ewes. The breed was Cheviot, bred on this farm for 55 years. One of these ewes was named champion of the show, and a pen of three Brooklea ram lambs also took first in their class.

Directory — Many readers of AMERICAN AGRICULTURIST are among the more than 1,100 New Yorkers listed in the forthcoming edition of the Empire State Agricultural Leaders' Directory. In preparation for over a year and a half, the Directory is scheduled for publication this spring by Robert Eastman, Inc., 306 East State Street, Ithaca, N. Y.

The Directory contains concise biographies from facts supplied by many of New York State's leading farmers, and people in agriculture-related fields. It is the first book of its kind to appear since 1935, and should prove invaluable to anyone connected with agriculture.

Apple Promotion — Meeting at the 103rd annual convention of the Horticultural Association, Pennsylvania's fruit growers resolved to assess their apple crops to provide an estimated $150,000 annually to promote the State's 8,000,000 bushel harvest, under the apple marketing act and enabling legislation signed last summer. The apple producers are the first agricultural group in the State to use the enabling bill to market their crop.

Chartered — Charter members (all Empire Staters) of the newly-formed Fourth of July Club are: Graden Decker, Afton; George Boise, Albert Foster, Harry Lynk and Donald Rhyde, Norwich; Edward Cobb and Louis Dunckle, Oxford; William Rowlinson and Read and John Adams, Greene; George Gersch, Earlville; Kenneth Hutchinson, Pitcher; Barton Lorimer and Clifford White, Bainbridge; Robert Tompkins, Ashland; Walter S. Camp, South New Berlin; and Clarence Harvey, Cincinnatus.

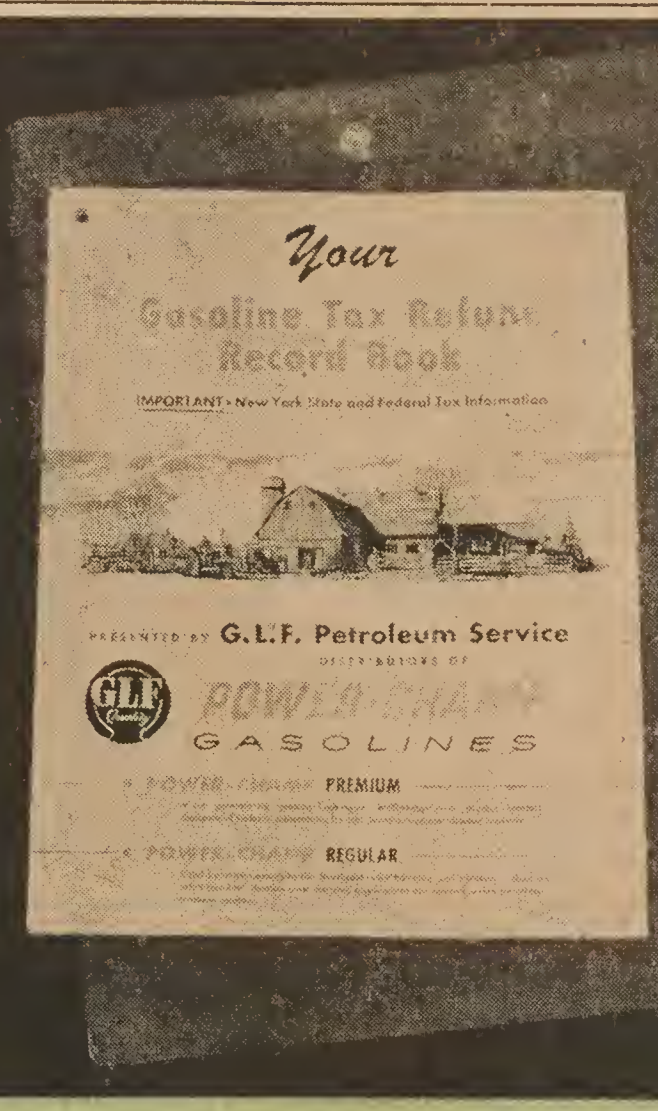
They qualified for membership by having their first cutting of hay in the barn by last July 4th, and celebrated their achievement recently by a dinner meeting in Norwich, where W. Keith Kennedy, Director of Research at Cornell University, was the main speaker. The contest and dinner was sponsored by the Norwich National Bank and Trust Company, and the Chenango County Extension Service.

Recognition — Wenroy Smith, Millersburg, Upper Paxton Union High School, Millersburg, Pennsylvania, was one of five vocational agriculture teachers who received fellowship awards from the Thor Research Center for Better Farm Living at the recent National Vocational Agriculture Teachers Association convention held in Kansas City, Missouri. Each of the teachers guided a student to a regional Future Farmers of America farm mechanics title during 1961.

Trophy — Castner Farms, Yatesville, N. Y. were awarded permanent possession of a Gold Lamb trophy at the recent meeting of the Schuyler County Sheep Breeders Cooperative. The Castners are the first to win permanent possession of the trophy, having received for three successive years the award given to the grower who markets 61 head or more and has the highest percentage of lambs grading "choice" or better.

free

GLF members, get your free copy of this weatherproof GLF Gasoline Tax Record Kit



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Last year 25,000 GLF members used this tax record kit to collect hundreds of dollars in gas tax refunds. Many of them filed for the first time, because they now had accurate records of the gas actually used for farming. And you can keep accurate records, too. Just fill out the coupon below and we'll send you your Gasoline Tax Record Kit. Here's what you'll receive:

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Durable, easy-to-use forms on which you'll write essential information about gas purchases and usage. No need to convert *hours of use* to gallons of fuel used . . . you do it right on the form.

A weatherproof plastic case that can be attached to the gas pump.

If you are a GLF member, we'll pay postage and handling. If not, send 10¢ to cover handling charges. Fill out the coupon and start saving valuable tax dollars. Offer is for a limited time only and quantity is limited, so send for your booklet *right now.*

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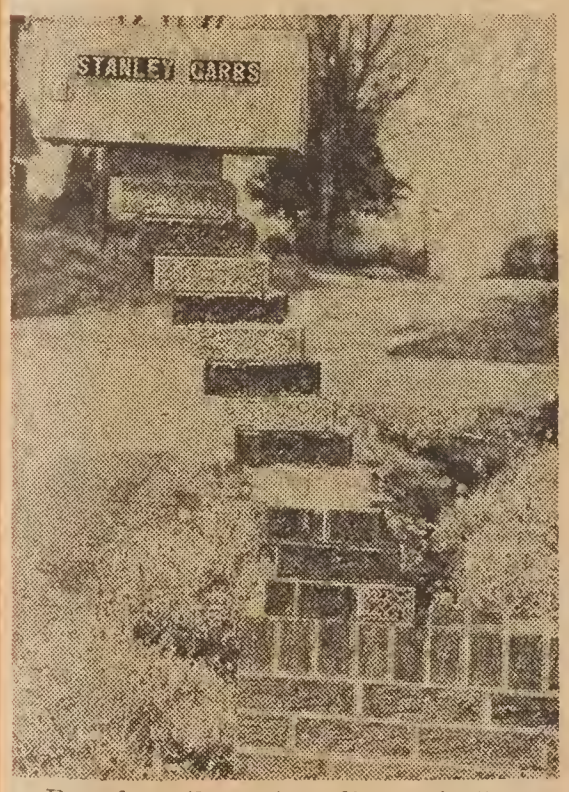
☐ *I am a GLF member* ☐ *Enclosed please find 10c to cover postage and handling.*

Ideas for Your Mailbox

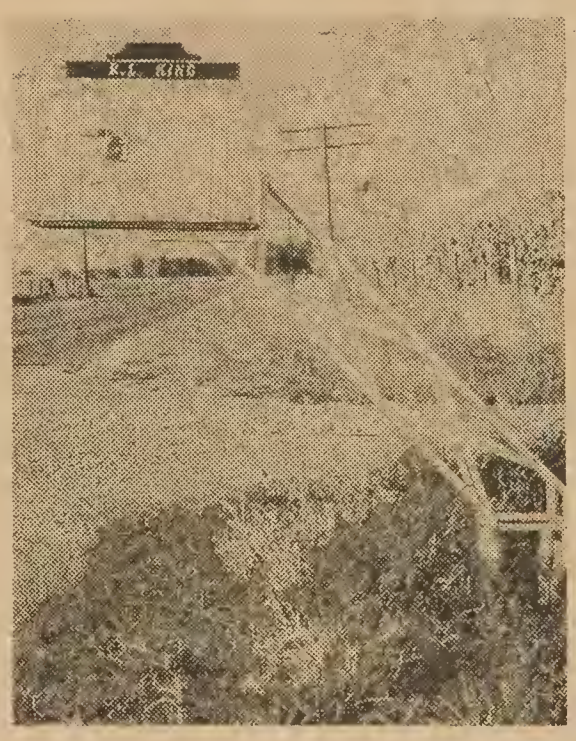
Now that winter is over, it's time to slick up, clean up and fix up. One item that may need attention is the mailbox, for many have been pushed around by snowplows during the past winter. Road crews do their best, but they can't always miss them as they strive to keep America's wheels rolling. Here are some ideas:



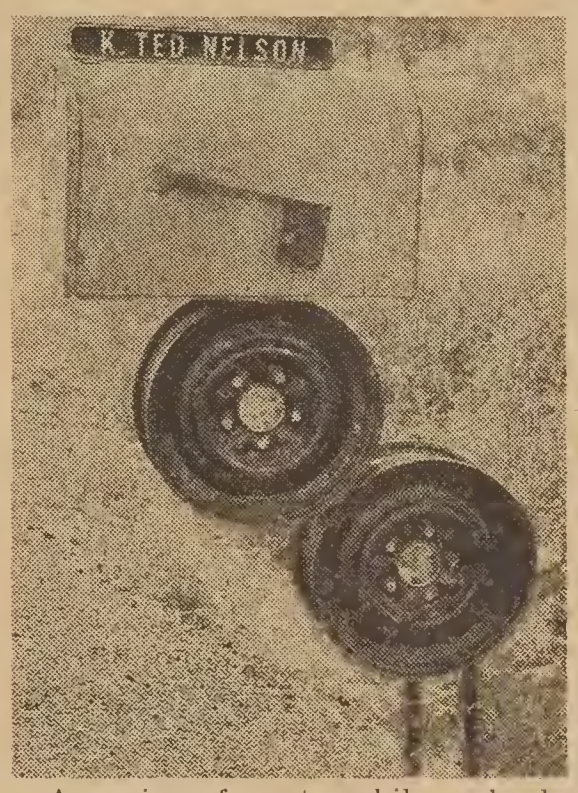
Here's a 55-gallon oil barrel fitted with a sheet metal door hinged and fastened with a hasp over the package opening. Chains supporting the mailbox are welded.



Rural mail-carriers like this "staggered" mail box, set on a brick support, for in building each brick was angled so the box itself is easy to reach from the carrier's vehicle, with no danger of fender-snubbing. The staggered bricks also add a bit of novelty to the box, and despite its "leaning" at an alarming degree, the rich mortar in the bricks make the box strong and stable.



A cantilever mount for this mailbox allows it to be placed in the grader ditch out of the way, but the box to be easily reached from a car window. The mount is of welded angle iron welded to iron pipe driven into the ground.



A pair of automobile wheels welded together and to a pair of axles driven in the roadside make this attractive mount for the mailbox. The wheels are painted red.



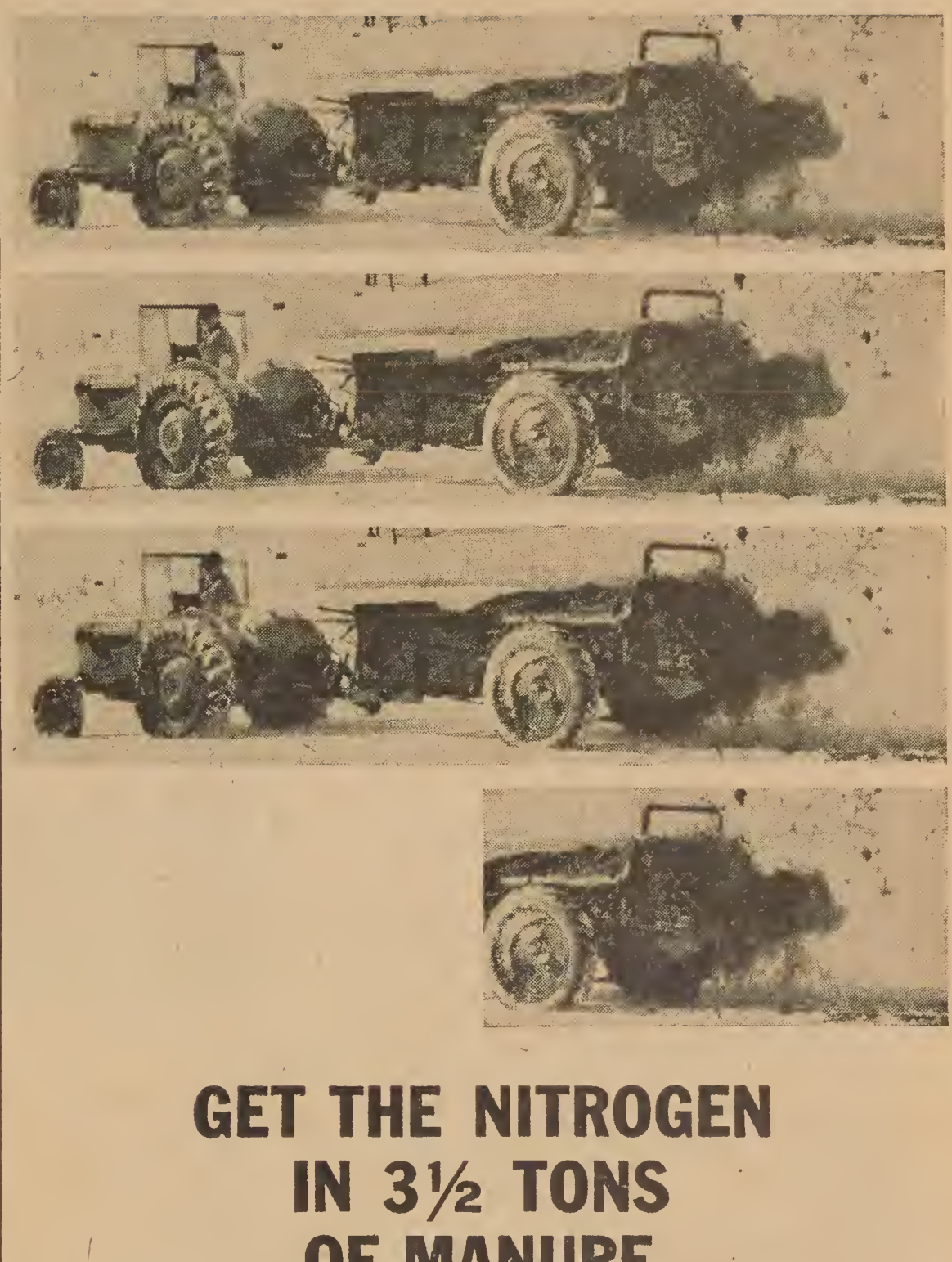
If the road maintainer or snowplow strikes this mailbox there is no damage—it tips over and rolls off to the side. The box is nailed to a fitted board which is bolted to a piece of flat iron welded to the top of the post. A car wheel is welded to the pipe for a base.

MAILBOX MEMO

Keep in mind these things when it comes to mailboxes:

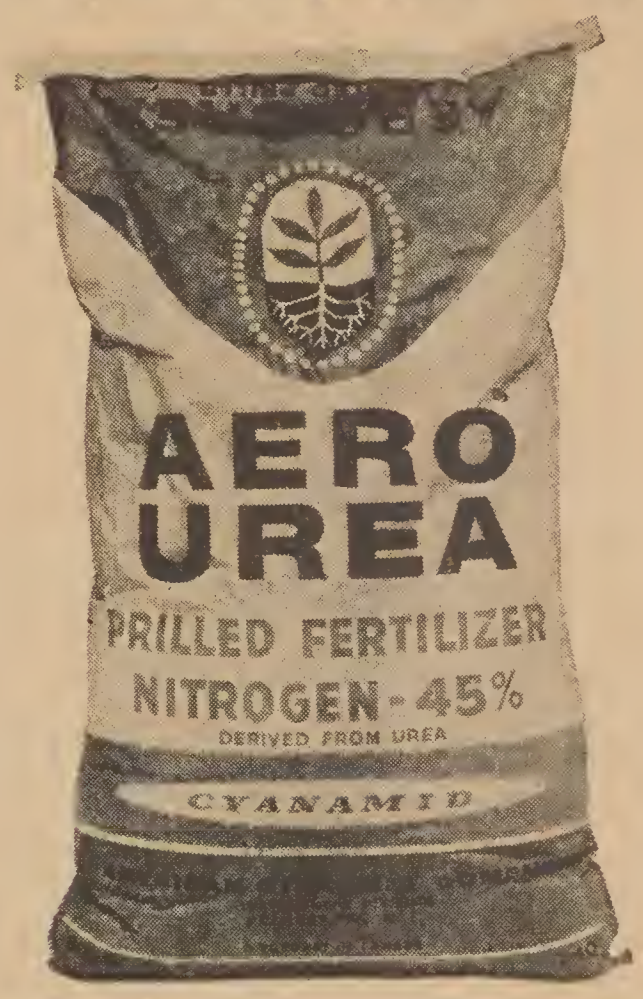
1. Regulations say the distance between the bottom of a small mailbox and the ground should be 42 inches, larger boxes 38 inches.

2. Check with your mail carrier; he deserves consideration and will be glad to make suggestions of mutual benefit.



GET THE NITROGEN IN 3½ TONS OF MANURE...

FROM ONE BAG OF

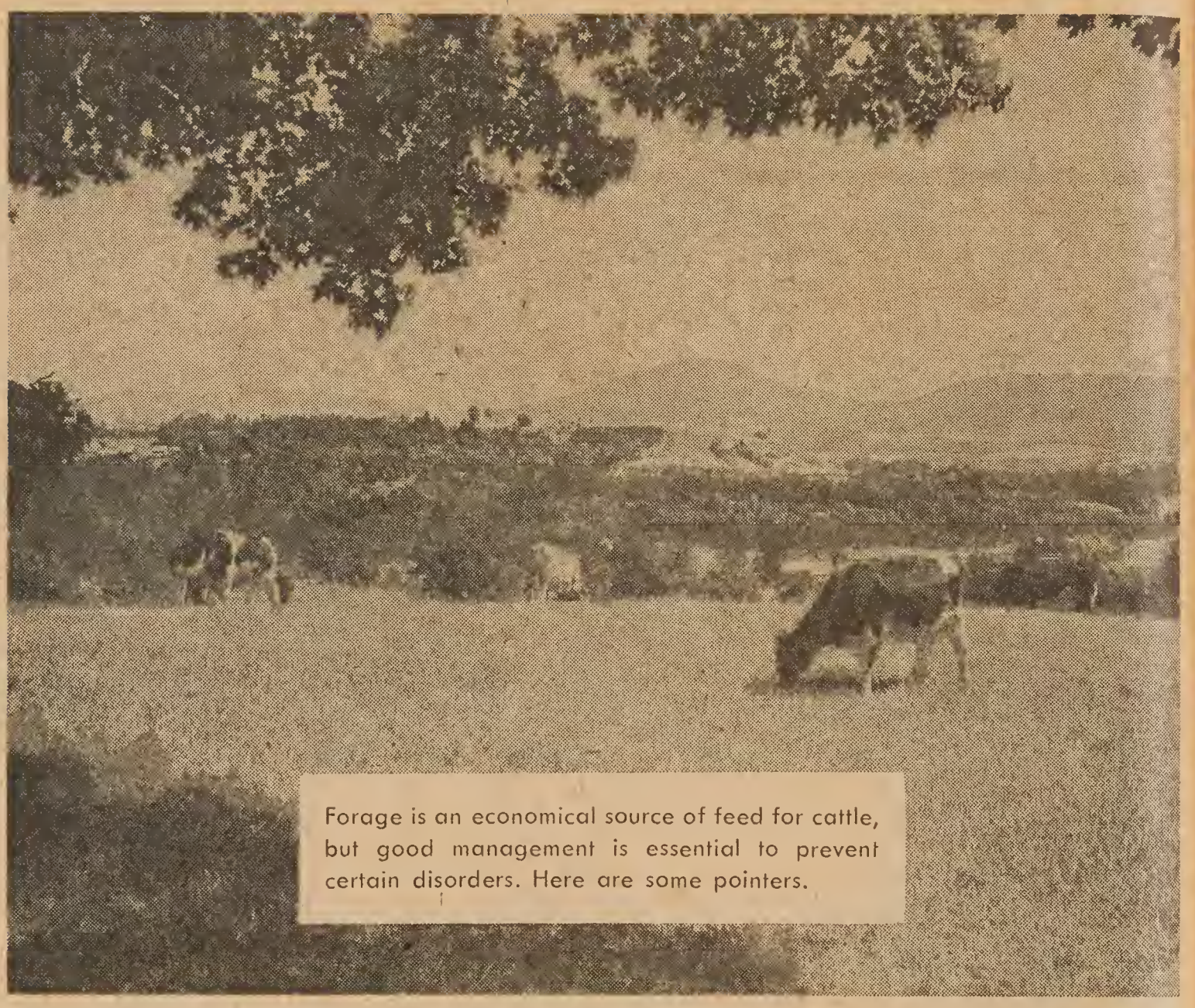


The 80-lb. bag of AERO® Urea above contains 36 pounds of actual nitrogen. This means you handle and apply just ⅓ to ½ the number of bags necessary with lower-analysis nitrogen fertilizers. It's the work-cutting crop builder . . . the concentrated, free-flowing, quality, 45% nitrogen fertilizer in the white, red and green bag made by American Cyanamid Company, Agricultural Division, Princeton, New Jersey. ®*AERO is American Cyanamid Company's trademark for its urea fertilizer.*

CYANAMID

Avoid Forage Feeding Problems

By S. B. GUSS*



Forage is an economical source of feed for cattle, but good management is essential to prevent certain disorders. Here are some pointers.

GREAT STRIDES have been made in every aspect of forage production in the past twenty years, but intensive production of these forages has brought into importance several disorders of cattle which had previously been rare. A tendency to produce but one species of grass for hay or pasture has brought about some problems not encountered on more natural pastures where several grasses and legumes are found growing together. Management practices used on many farms tend to eliminate either the grass or the legume in a pasture or hay crop and may in themselves tend to encourage bloat.

Bloat

Bloat is, perhaps, the most important disorder found in animals which consume predominately legume pasture. Low fiber content, high moisture content, and the presence of saponins are important in bloat production. The problem can be minimized by these management practices:

1. Because alfalfa seems to be our most important bloat producing plant in this area, it is wise for pasture to sow with alfalfa a palatable grass.

However, pure stands of alfalfa can be safely pastured if livestock has access to palatable grass for at least half of each day. Alfalfa pastures and sudan grass provide a desirable combination; pasture the sudan at night and the alfalfa during the day time when its moisture content is lower.

2. Keep coarse, dry hay or straw available to cattle on lush succulent pasture. They will eat an amazing quantity of this material if it is available to them when they need it.

3. Never turn hungry cattle into pastures likely to produce bloat. If animals are fed grain and dry roughage before they are turned out, they will eat less rapidly and the dry material will stimulate rumen activity which removes the accumulating gas.

4. It is far better to keep cattle on the bloat producing pasture at least half of each day than it is to remove them for a couple of days and then try to put them back again. The use of a round tablespoon of ordinary laundry detergent daily in the grain for each cow for the first two or three days will help to prevent the appearance of frothy bloat.

5. Penicillin-salt mixtures may be helpful to prevent bloat for a few days. Two years ago this was hailed as the answer for bloat prevention.

6. Birdsfoot trefoil has a place on any livestock farm. It has never been incriminated in bloat here in Pennsylvania under any circumstances. It is mighty good to have a field of birdsfoot trefoil available when warm, wet weather produces lush growth in other pastures and the cows remain in a nearly bloated condition most of the time.

7. Ladino clover can be prevented from "taking over" in clover-grass mixtures by applying nitrogen. We hear very little about ladino clover bloat since farmers quit trying to grow pure stands of it.

Development of varieties of alfalfa containing a lower amount of saponins would be helpful for improving the safety of alfalfa as a pasture plant.

Grass Tetany

Grass tetany used to be considered a problem peculiar to areas where farmers winter pastured cattle on small grains with little or no other supplementary feeding. Today we find it on some farms in periods when grass is growing rapidly. It is caused by lack of sufficient magnesium in the material consumed by the animal—or by an excess of other substances, such as potash and nitrogen—which appear to depress the amount of magnesium in the animal's blood.

Characteristic symptoms are partial paralysis and recurrent convulsive seizures. Mildly affected animals may show twitching and a clumsy gait. Severely affected animals die in a very short time in violent convulsions. Some animals resemble mild cases of milk fever — that is, they go down and also show nervousness or twitching. They do not respond well to milk fever treatment (injection of calcium salts); they do respond when magnesium salts are added to the calcium injection.

Excessive levels of potash in the soil tend to prevent the plant from taking up sufficient magnesium and calcium even when the soil is not deficient in these elements. Excessive nitrogen and potash soil treatments produce very rapid lowering of blood magnesium levels in animals. Grasses normally contain less magnesium than do legumes and the levels of magnesium in the grass are more easily depressed by fertilization practices than are those of the legumes.

Here are some suggestions:

1. Complete fertilizer applications are safer than those which would add only potash or nitrogen. Because potash levels are usually high in early spring, applications might be postponed until June.

2. Supplemental feeding of magnesium salts might be beneficial in early spring on farms where the problem occurs.

3. Some investigators believe that there is a cow family tendency toward the disease. Where it regularly occurs, not more than two or three percent of the herd is affected.

4. Applications of dolomitic limestone have long been recommended, but they have little effect on the magnesium content of the grass.

5. If grass tetany has been a problem on your farm, consider the soil levels of the elements involved, increase the quantity of legumes in your pastures, and add a half percent of magnesium sulfate (Epsom salts) to grain mixtures fed during the spring and early fall seasons when the problem occurs.

Nitrate Poisoning

This problem has increased in importance in the past few years. It is not a new one, and it is **not** directly related to nitrogen fertilization practices. Poisoning occurs when nitrate levels in the plants exceed normal amounts, and the experts who study this differ in what they consider normal amounts.

Where adequate nitrogen is present in the soil, abnormal amounts of it accumulate in the plants whenever plant growth is retarded. Animals are able to eat plants containing slightly excessive nitrates without ill effect when additional energy is present in the ration. The nitrogen and crude protein content of grass is far greater in relation to the carbohydrate (energy) levels in early spring than it is for the rest of the season. During cold, wet weather in early spring, both small grains and grass pastures are likely to produce nitrogen poisoning if no supplementary grain or good hay is fed. Excessive nitrates tie up the oxygen-carrying capacity of the blood.

The slightest interference with oxygen availability will cause death of well-developed fetus. In cattle which are not well along in pregnancy, the only symptoms noticed may be shortness of breath following exertion and a drop in production which may last several weeks.

Nitrate poisoning is most common during late summer periods of drought. When permanent pastures are grazed down, the cattle resort to browsing on weeds and shrubs. Most of the broadleafed weeds and shrubs contain excessive nitrate levels when they are affected by drought.

One farmer in Lebanon County, Pennsylvania, in 1958 fed his 20-cow herd equal parts of green-chopped corn and redroot pigweed during a severe drought. Two cows died from asphyxiation; all the remaining animals aborted their calves. Although he had done this in previous

(Continued on Page 27)

*Extension Veterinarian, Pennsylvania State University



What makes my Co-op valuable to me?

Milk from my herd has just been pumped into this bulk tank truck. Now it's on the way to market.

I know there *is* a market for my milk, because my milk is farmer-controlled every step of the way. I do this through my co-op—along with 17,000 fellow Dairymen's League members.

Through our League Locals and district directors, we have a voice in the operation of one of the nation's most efficient and widespread farm-to-market milk transportation systems, including a fleet of 1,000 League-owned bulk tank, over-the-road, wholesale and retail trucks.

More important, we own and operate 91 milk plants throughout the milkshed, including the largest manufacturing plant in the Northeast.

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DAIRYMEN'S LEAGUE COOPERATIVE ASSOCIATION, INC.

I WAS JUST FIGURING...

—by Cy Watkins



MIRACLE FLY KILLER

Ever since DDT, you hear stories of new insecticides that sound like the answer to a farmer's prayer. I've heard tell of things you can "spray on the barn in the Spring, and you won't have a fly all year."

Sounds great, doesn't it? But let me give you the honest-John truth . . . "there just ain't no sech animul" . . . not one that's safe to use.

The truth of the matter is that if you want good fly control, no **one** insecticide will do the job. It takes a fly control **program** that includes good sanitation practices and several different types of insecticides.

Take dairy fly control, for instance. Here is a recommended fly control program that will really pay by preventing losses due to flies.

1. **Management.** Get rid of breeding spots. Spread manure often. Use screens wherever possible.

2. **Residual Insecticides.** Use residual insecticides to keep the fly population down. They'll swamp you if you don't. A recommended residual is Watkins Triple Duty Concentrate, which can be mixed with water and sprayed on walls, manure piles, etc. It kills for weeks and weeks. Another is Watkins Face Fly Killer and Fly Bait, a sweet, syrupy insecticide you can daub on window sills and other places where flies like to rest.

3. **Pasture Protection.** Watkins Dairy Fly Spray is approved and safe for use directly on dairy cows. It's a combination fly killer and repellent that protects cows while they're grazing . . . lets 'em spend their time mowing grass instead of fighting flies.

 Also, if you're in a face fly area, you'll need to protect cows from these pests with Watkins Face Fly Killer and Fly Bait. Just brush it onto their face.

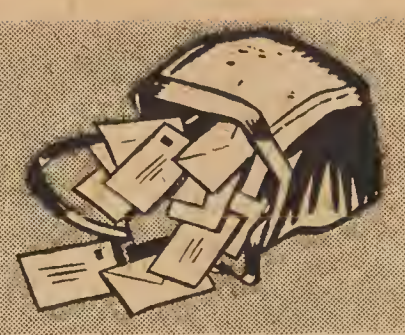
4. **Space Sprays.** To top off your program, you will need Watkins Pyrethrum Fly Spray for use in the barn before milking time. It's powerful, effective . . . and economical.

A complete fly control program like this doesn't cost . . . it pays. It pays by preventing losses in production that pesty flies can cause . . . production losses that sometimes run as high as 20% . . . one gallon of milk in five.

Your Watkins Dealer has the recommended insecticides and insect control programs for most insect problems you'll ever run into. Let him help you do the job on your farm.

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Readers Tell Us!



A THIRD ALTERNATIVE

As I see it, there is no question about the New York dairyman's ingenuity as far as production is concerned. However, as far as promotion and advertising of his products are concerned, his ingenuity is notable for its absence. In fact, in these areas he is an ignominious failure.

As a dairyman myself, I think quite a case could be made for the premise that in a large measure our present difficulties stem from our inertia in the promotion area.

The New York dairyman has concentrated all of his efforts on being a good producer. But there his efforts have stopped. He has assumed that because he produces milk and milk is good for people that they ought to and will buy it. It just hasn't worked out that way. People seem to be buying decreasing amounts of milk per capita.

In the meantime, the purveyors of beer, soda pop, orange juice, and corn oil have been engaging in advertising and promotion programs right up to the hilt, and they are stealing the dairymen's market right out from under his nose!

Presently, the dairyman is faced with two alternatives: to accept reduced price supports or a supply regulation program. To me he deserves to get either one of these alternatives unless he uses some of the ingenuity he is credited with having in developing still a third alternative: this would be getting behind a rip-snorting, slam bang milk promotion and advertising program. The New York Dairy Council and the American Dairy Association are already set up and waiting to do just this job for him.

Sure, it will cost the dairyman dough! But it will beat the daylights out of accepting milk production quotas from some regulating agency. And it might do the trick! It might at long last enable him to hold his head up and say to the world that he has licked his own problem! —*Kimber Spargo, Springfield Center, N. Y.*

SUPPLY MANAGEMENT

With reference to production control and price supports—I wish we were rid of all of it. It should have been discarded as soon as possible after World War II. I wrote our Senator then that I would like to see the agricultural program trimmed down like a grape vine with only the main stalk left.

It gets worse instead of better and the costs are far in excess of the good accomplished. I have been in every state in the Union (except Arkansas) in the last few years and, while conditions vary, it is pretty much all the same. The big fellows receive the benefit; a little fellow who needs cannot qualify for enough to do him much good.

I received a letter once asking me to put my farm in the Soil Bank. Why not? I will never be able to work it again. I have a good farm and they will pay me twice what I can get from anyone else; so I put it in for ten years. I do not think this was right, but as you say that is the law and I will have to help pay for it. Perhaps it is more sensible than buying more crops that cost millions of dollars to store and finally decay.

Just as in all other programs, here is the catch. Only 14% of the Soil Bank farms in New York State were previously operated by full-time farmers and more than one-third had no connection with any farm business prior to the Soil Bank.

The grain program is no better; it works out the same way. One of the largest corn growers in Madison County, N. Y., retired enough land to draw $6,000. He did just what any smart man would do. He retired his poorest land and put a little more plant food on his best land. He had a beautiful growing crop last summer and he has since told me that he harvested nearly his normal production.

I later talked with the largest and wealthiest farmer in Onondaga County; he was contemplating the same thing and I have since been advised that he did. This is just gravy for these men; they did not need help. I found similar cases in Nebraska, Wyoming, South Dakota, Iowa, etc.

Perhaps I am crazy, but I am still for supply and demand. The crops least tampered with are the best off —why did they not leave soybeans alone?

I have always maintained that if we do have price supports they should be just high enough for a floor—just enough to keep a farmer from bankruptcy in an emergency. —*Kenneth M. Harsh, Canastota, N. Y.*

POTATO SCAB

Regarding scabby potatoes, we tried both Cherokee and Ontario (scab resistant varieties) but think they are poor potatoes for quality and taste. A much easier way to prevent scab is to keep ashes, lime, and hen manure off the place where potatoes will be. Scab can easily be prevented even if the ground is too sweet simply by coating the potatoes after they are cut with some dusting sulphur, or if that is not available, some common sulphur. We dump a bushel of potatoes into the planter hopper and then dust with sulphur. — *Mrs. Winfield M. Sutton, Jamestown, N. Y.*

McGUFFY READERS

I am not going to put off writing to you any longer. I am a constant reader of AMERICAN AGRICULTURIST and enjoy it so very much.

I wonder if any of your readers might have some old McGuffy readers in their attics? I would gladly pay a price, or exchange something for them. I would love to find an old phonograph with the cylinder records and morning glory horn, and any old story books about the Hoosier State, such as the Gene Stratton Porter books, books by Lilly, Batcheler, Davies, etc. I like old-fashioned country stories dating back to the 1860's. — *Mrs. Mildred McLellan, Charlton Depot, Mass.*

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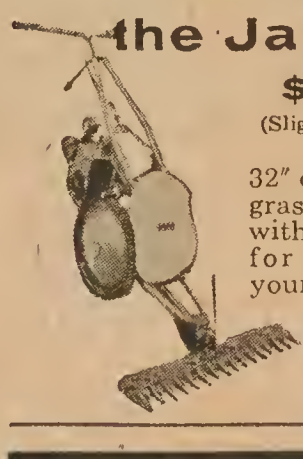
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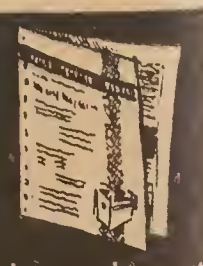


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HIGHER HERD AVERAGE?

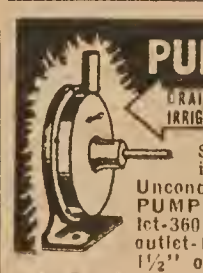


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MOORE CO. Swedesboro 30, N. J.

Avoid Forage Feeding Problems

(Continued from Page 24)

years and fed the green-chopped corn without trouble, the dry weather and the large amount of pigweed were responsible for the problem. Sudan grass suffering from drought is equally dangerous. I believe that most of the reports of prussic acid poisoning from sudan grass in the summertime are actually nitrate poisoning.

Some points to remember to prevent nitrate poisoning:

1. Feed adequate amounts of grain and hay or good silage to animals which are grazing lush spring pasture.

2. Weed control in pastures and cropland is important.

3. Topdress pastures with nitrogen only when you are sure that the amounts of other fertilizer elements are adequate.

4. Small repeated applications of nitrogen are much more sensible than single massive applications.

5. Avoid treating **all** of the pasture land on the farm with nitrogen at any one time. Cattle will automatically tend to avoid high nitrate grass if safer grass is available.

6. While we can confidently say that there is no direct relation between nitrate poisoning and nitrogen fertilization practices, we would not hesitate to say that good judgment must prevail when nitrogen fertilizers are used to stimulate greater production. The farmer who applies excessive amounts of nitrogen on his pasture or hay land can be in real trouble if the weather prevents proper utilization of the nitrogen by the grass.

All Legumes

In my visits to many Pennsylvania farms with veterinarians over the past five years, I have noticed effects on the health and breeding efficiency of dairy cows where an all-alfalfa roughage diet was used. These farms have been predominately those of limestone soil areas where the pH of the soil exceeds 7.0. All of the roughage fed is alfalfa hay, alfalfa silage, or both.

The cattle exhibit erratic heats, silent heats or cystic ovaries to a greater degree than you would expect in a normal herd, and milk fever is a herd problem. In one herd of 27 cows, 23 of them, including three first calf heifers, were affected. We suspected that the animals were suffering a deficiency of phosphorus brought about by excessive calcium in the ration. When monosodium phosphate was used in place of part or all of the dicalcium phosphate or bone meal part of the ration, improvement was readily apparent. Animals require calcium and phosphorus in 2 to 1 proportionate amounts. Apparently the ratio of calcium to phosphorus greatly exceeds the required 2 to 1 in herds fed entirely on alfalfa forage.

Feed trace mineralized salt; it is an established fact that adequate amounts of certain trace minerals can be depressed with heavy applications of some fertilizers. Ground limestone should never be fed to cows if there is any legume present in the ration; dicalcium phosphate or steamed bone meal are recommended for most farms. Where soil pH is high and cattle consume all legume forage, straight phosphorus supplements are recommended.

Our success in animal agriculture here in America is one of the foundations of our national strength. If our city people and politicians do not decide to solve the "farm problem" by choking off research in this field, we should be able to reach even greater heights in production efficiency.

Country Pastor

By ARTHUR MOODY

Timberline Music

AT the foot of a Western mountain I got acquainted with a violin maker. His instruments had a rare tone quality. In our conversation this important fact came out: tone is largely a matter of choosing wood grown near timberline.



ARTHUR MOODY

Timberline is the area from 9,000 to 11,000 feet in the frigid zone where trees do not grow. Wood that has been "wind swept" many times gives forth a tone unequaled by that grown at lower altitudes. Action of the wind and cold conditions the cells and the grain to produce tones of unusual purity and sweetness.

Is it so with our souls? The endurance of hardships, the withstanding of storms, results in a serenity of soul and strength of spirit producing a tempered personality. That experience gives a mellow power, revealed by deep feelings and generosity. Maltbie Babcock wrote about seventy years ago:

This is my Father's world;
And to my listening ears,
All nature sings, and 'round
me rings
The music of the spheres.

Can we gather in the sweep and swing of the elements of Creatorship? It might help us in our own efforts to produce something beautiful!

North, South, East and West...

TONGANOXIE

The TONGANOXIE System of cow milking has been eagerly accepted and its use quickly widespread. Reports like these, from all across the country, indicate that the TONGANOXIE Milking System is possibly the very best cow milking anybody has ever seen!

UP NORTH

"Since changing over to our TONGANOXIE Milking System our milk production has gone up 309 lbs. a day increase on 50 cows. We can see a steady improvement in the udder health. We like the even vacuum and the cleanliness and visibility of our system."



OUT WEST

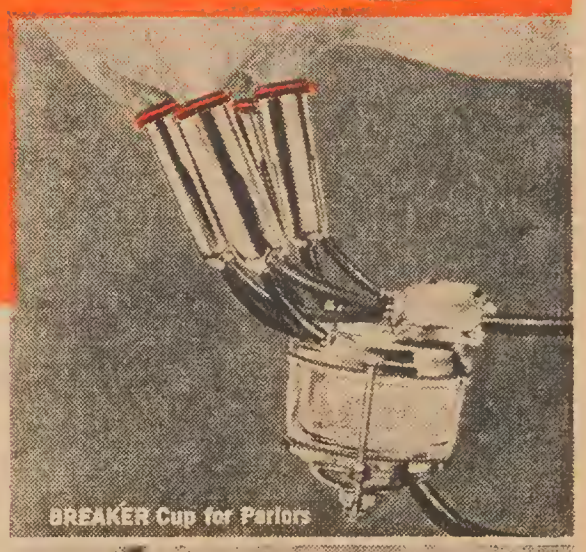
(Milks 870 cows with a 10 stall milking parlor with TONGANOXIE Milking System with 8 Breaker Cups.) "I like the fast milking that we get with the two vacuums. We have almost no udder trouble now with this system. The right vacuum releasers also make it work right. It is the more efficient and fast milking allows us to milk more cows."

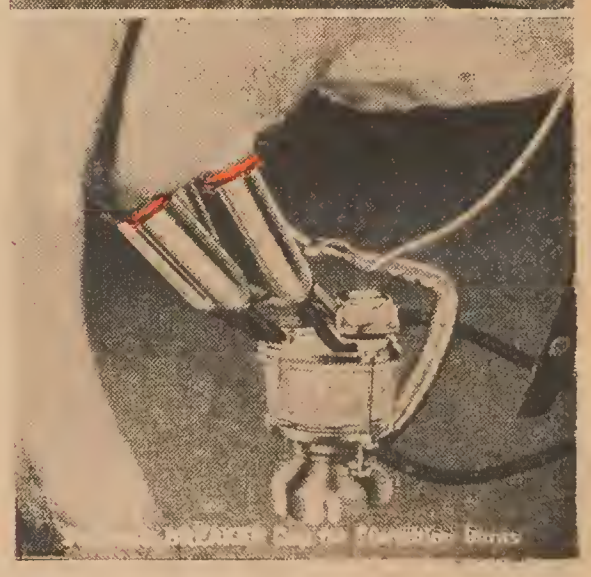
BACK EAST

"Our herd of 40 Holstein cows of which we have about 10 heifers every year, averaged 15,277 lbs. of milk and 577 lbs. of butterfat in 1961. Changing over to the TONGANOXIE system has helped our milk production. We have less udder trouble and milking time has decreased. The vacuum is the same all the time, which I think is very important."

DOWN SOUTH

"Milking speed has increased from where we milked 35 cows with two men in 1 hour 30 minutes to 35 cows with one man in 1 hour 15 minutes. We have a lot less udder trouble in fact only one case in six months and that was caused from jumping. The health men are well pleased with the TONGANOXIE system and said they would like to see more like them installed."





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Terms used in official forecasts	Miles per Hour	Wind effects observed on land	
Light	1-3	Calm; smoke rises vertically. Direction of wind shown by smoke drift but not by wind vanes.	
Moderate	13-18	Raises dust and loose paper. Small branches are moved.	
Strong	25-31	Large branches in motion; whistling heard in telegraph wires. Umbrella used with difficulty.	
Hurricane	75+	Rarely experienced; accompanied by widespread damage.	

Whatever the wind, do "blow in" to G.L.F for facts on best use of fertilizers and seeds on 40 acre fields or 40 square foot gardens And plan your field work with WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Plattsburgh	WEAV-FM	99.9 mc.
Troy-Albany-Schenectady	WFLY-FM	92.3 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Plattsburgh	WEAV	960 kc.
Binghamton	WKOP	1290 kc.	Poughkeepsie	WKIP	1450 kc.
Boonville	WBRV	900 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Remsen-Utica	WREM	1480 kc.
Elmira	WENY	1230 kc.	Salamanca	WGGO	1590 kc.
Hornell	WWHG	1320 kc.	Sayre, Pa.	WATS	960 kc.
Ithaca	WTKO	1470 kc.	Schenectady	WGY	810 kc.
Jamestown	WJTN	1240 kc.	Scranton, Pa.	WEJL	630 kc.
Newark	WACK	1420 kc.	Syracuse	WHEN	620 kc.
New York	WQXR	1560 kc.	Syracuse	WOLF	1490 kc.
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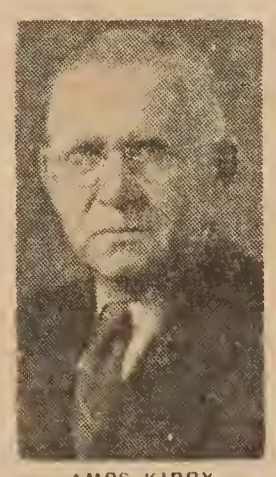
Farming On The Move

By AMOS KIRBY

New Jersey Editor of American Agriculturist

OUR NEW JERSEY column this issue is based on a few observations resulting from a trip across the country. While most of the Midwest and the Northeast were blanketed under snow, we were sitting by the side of an outdoor swimming pool.

From the tobacco country in the Carolinas to the cattle country of Texas, New Mexico, and Arizona, one finds that farming is on the move. I have talked with farmers, ranchers, and businessmen from about 20 states, and I do not find one instance where good land is cheap. Talking with a tobacco farmer in the Carolinas with a five to ten acre allotment, one finds land priced as high as $1,000 an acre. In Louisiana rice is big business. The farms are big; labor-saving machinery does most of the work; and land values are far above any in New Jersey except that with an industrial price tag.



AMOS KIRBY

One has to get into Texas to see big rice fields, big ranches, and cotton fields as big as a half dozen average New Jersey farms. Even in Texas there is no cheap land. At a motel where we stayed were Midwesterners from an area where wheat, corn, hogs, cattle, maize are big operations, who stated that one cannot locate any cheap land. Speaking of cattle land, I talked with a man from West Texas who told me that he and many others have bought land in Brazil. Land in Brazil (facing good highways) is cheap. He bought several hundred acres for $3.50 per acre, so far just as an investment. This shows what is going on in farming across the country.

Farm Programs

There are mixed views about farm programs. The tobacco and rice growers are in the sheltered areas; the same goes for cotton. Hog and cattle operators want no part of government controls. They are doing all right. Hog growers admitted to me that it costs around $13 to produce pork; with the farm market at $16, there is no cause for complaint!

More concern is found among wheat growers. They are afraid of the open market with no supports; they fear an over-production, with $1 a bushel. Corn growers who have hogs and cattle watch the Chicago grain markets with an eagle eye — but they are losing no sleep. One Iowa man summed it up in this manner: "Farmers do not like any government controls—but they go along and accept them."

The Rio Grande

We went through the big winter vegetable area of the Rio Grande Valley, from Brownsville to Laredo and thence to El Paso. This has been a hard winter on the Valley. The orange and grapefruit trees have been injured. There was not a leaf left on any grove that we saw in upwards of a hundred miles of travel in the citrus belt. Grapefruit could be picked from the trees, but they were just a mass of fibre, and felt like sponges. In some groves new growth was starting on the bigger branches, but it means heavy pruning and very little fruit next winter. I was told that the losses on citrus were in excess of $20 million.

Carrots and beets had their tops frozen back to ground level, with new growth starting when the weather warmed up and irrigation was used. Onion growers had discussed the crop outlook, summing it up thus: "There has been enough damage to the onion crop to reduce tonnage to the point where we now have a chance to get a fair price for the crop."

Water

One does not have to go many miles beyond the Mississippi River to find that water is far more precious than land. Anywhere in Texas, New Mexico, or Arizona water is the deciding factor. It is conceded by many that in this three-state area upwards of a million wells have been sunk—and the search is continuing. There have probably been more ponds and dams erected in the last ten years than in the past hundred years. The United States and Mexico have built a dam across the Rio Grande River that backs water up for more than 40 miles, necessitating the tearing down of one whole town to make room.

Southwestern landowners in recent years have found more water underground than anyone had ever dreamed. Where the water comes from no one seems to know. There may be underground rivers supplied from the snow-covered mountains of Colorado, northern New Mexico, and Arizona. Speaking of underground rivers, it is believed that much of the water now used in Florida comes from an underground river flowing down from the central part of the United States, which may be even larger than the Mississippi River.

Here and There

Now, what does all this mean to a New Jersey operator? As of now there has been no great expansion in vegetables, but it may come if the water supply holds out. A man from western Kansas, in what has been known as dry land wheat country, tells me that from his little town they shipped over 100 carloads of cantaloupes last year. Another man told me that there is a lot of interest in vegetables if water can be found. The limiting factor, after water, is the market.

Tops — Titles of respectively "Tops in Silage" and "Tops in Grain" went to two Garden Staters in the G.L.F. Corn Growing Contest called the 100-20 Club. Austin Hough, Sussex, won the silage title with 48.75 tons green weight and 21,937 pounds of TDN per acre. The Hough farm includes 192 acres of cropland to raise feed for 37 milking cows.

The Bodner brothers, John and Alex, of Hamburg, who grow corn after corn, just missed 150 bushels per acre. They recorded 149.88, and counted 17,000 stalks per acre.

Orchard Herbicides

(Continued from Page 18)

pumps. The relative cost of these different types is about in proportion to their versatility and effective life. PTO-mounted pumps are most commonly used, but some growers prefer an independent engine to drive the pump.

One essential for properly controlled spraying is a pressure regulator and gauge. Low pressure of about 40 pounds is quite adequate, and actually preferable to much higher pressures. Low pressure reduces the drift which could injure the foliage of low branches; it also reduces the annoyance of leaking couplings and fittings.

An air pocket may be required to equalize the pressure between impulses from the pump, otherwise the gauge may "chatter" confusingly over a wide range. The pocket can be provided simply by an 8 to 12 inch long length of pipe attached vertically under the pressure gauge.

When an old high pressure orchard sprayer is diverted to use with weed sprays, a supplementary, low-range pressure regulator is usually required to control the pressure to a 40-pound level. A problem sometimes encountered is that the small regulator cannot carry the volume delivered by the high-volume pump, so pressure rises out of control in spite of maximum return flow through the regulator. In this case a second return flow line can be added, with a valve to adjust the flow to the level where the regulator can handle the surplus.

Agitation of the spray mixture is another essential in the orchard weed sprayer. Both Karmex and Simazine are wettable powders that will gradually settle in the tank unless agitation is provided. In the sprayer composed of a PTO pump and a 50 gallon drum, the return flow from the pressure regulator, plus the rocking during orchard travel, provides some agitation.

To be sure that agitation is sufficient it would be well to include a "jet agitator," a cube with three apertures that inject pressure streams into the bottom of the tank; this is to be connected to the pressure side of the regulator, not to the return flow line. The jet agitator requires two to four gallons per minute of pump delivery in addition to the volume going to the boom or hand guns.

LATEST PAINTING POINTERS

(Continued from Page 12)

Tap off the excess paint on the inside of the can; **don't** scrape the brush across the rim.

Professional painters deposit paint in several spots and then join them together by brushing them out. Always paint with the grain and work from a dry area into one just painted. Use both sides of each brushful and end each stroke with a light, lifting motion — this prevents depositing too heavy an edge. When a section has been covered, the final step is to go over it with light, quick strokes to smooth out all brush and lap marks, to recoat any thin spots, and to pick up drips and sags.

On vertical siding, paint the grooves between the boards first and then do the faces. On horizontal siding, paint the bottom of each board first, then do the face.

Wood shingles are traditionally protected with shingle stain, but they can be painted with house paint or with special shake and shingle paint. Read the label instructions carefully to see whether the surface should be sealed with aluminum paint to prevent the shingle stain from "bleeding" through the new paint. As with horizontal clapboard, the bottom edges of shingles should be painted before the face. If there is a visible space between the shingles, this area should be painted before doing the edges and faces.

Wood porches and steps should not be painted with house paint because it is not formulated to stand up under the abrasion of feet. On new work, apply two coats of porch and deck enamel; on repaint work one coat is usually sufficient.

As a final sidelight, remember that paint color can change the apparent dimensions of a building and help control interior temperatures. In general, light colors will make a building look larger, dark colors will make it look smaller. Similarly, white and light colors will reflect the heat of the sun and make barns as much as 16 degrees cooler, particularly if the roofs are painted white.

SUMMARY OF HERBICIDE MATERIALS

The listed weights are for one acre of treated ground area, or for 100 gallons of spray mix IF the SPRAY is applied at 100 gallons per acre. Lower rates listed are for young trees, for dwarf apples, for stone fruits, or for growers cautious by preference.

I. For residual control of weeds that will start later from seed, plus some control of small and shallow-rooted weeds; to be used in the spring:

- **A. Karmex (80% diuron) 2 to 4 pounds
- **B. Simazine (80%) 2 to 5 pounds

II. For quackgrass and other established weeds:

- **C. Dowpon (85% dalapon) 4 to 10 pounds
- D. Weedazol or Amino triazole (50% amitrole) 4 to 8 pounds. Temporary control of quackgrass and many other growing weeds.)
- E. Amitrol T (2 pounds amitrole per gallon) ½ to 1 gallon. (Controls quackgrass and some other growing weeds)

These materials can be added to A or B, or applied as a later spray for late-starting perennials and other weeds that survive A or B. **On bearing apple trees, use only Karmex, Simazine, or Dowpon; on bearing pears, use only Karmex and Dowpon; on bearing peaches, use only Dowpon at lower rate and on an area no larger than 6' x 6'; repeat lower rate if grass is still growing three weeks later. Other materials are for non-bearing trees, as discussed in the accompanying article.



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CONFUSION FOR EVERYONE

IT'S hard to remember a time when there has been as much confusion, uncertainty, and loose thinking as right now. The reason, of course, is the proposal that there be dairy quotas.

It seems to me that part of the confusion stems from the tendency to "see how quotas will hit me," rather than to examine the underlying facts and the long-run implications. It's pretty superficial to decide to be for or against such a program on the basis of what level of milk production one had during the proposed base period.

Own Fault

Let's see how we got ourselves into this kind of bind. It was only a couple of years ago that government stocks of dairy products were gone and it looked as though dairying was on a sound basis.

A little more promotion and a little lower support prices and all would have remained fine. But no—too many producers failed to kick in for advertising. The industry showed little imagination or aggressiveness in moving supplies. In fact, the call went out for higher support prices. These made sure we would develop a problem.

So far as I am concerned, the issue is not complicated. It is this simple; either the dairy industry (all segments included) has the brains, the will, and the imagination to move two, three, or even four percent more milk into the fluid channels or it doesn't. Either we are a dynamic bunch of businessmen with enough of what it takes to tackle and solve our own problems, or we aren't. And if we aren't, then of course, we must run to "Uncle Whiskers" for help.

There is a persistent undertone at farm meetings that perhaps we are partly to blame for the mess we are in because of our neglect of our responsibilities when we pick our directors of our dairy co-ops. It would seem evident that if we are to keep the industry free, there should be no doubt about the way our leaders think on this.

Speak Out

It is not my intention to point the finger at anyone, but I think we have reached a point where we had better say what we think. Some of our paid leaders keep calling for higher support prices, claiming that farmers can't survive otherwise. Frankly, I'm not the least bit interested in turning the dairy industry over to the politicians just so every high-cost producer (big or little) can stay in business. Competition is good for the dairy industry just as for any other.

It is true there is less profit in dairying than we would like to see, yet there is a profit and a good living for those who are doing a good job. If we would but concentrate on selling fluid milk, the blend returns could be some higher too.

I can't forget seeing, during my trip to South America, that milk consumption was very low. One of the explanations was, "People can't afford it." Those same people could afford soft drinks in unbelievable quantities. It's just possible that if we don't yet know how to merchandise our product sufficiently well, we had better take lessons from some really successful merchandisers!

What real research is being done by the dairy industry here in the Northeast to develop ways of handling milk so it can be exported and available to consumers in other countries as some form of reconstituted fluid milk? If anyone in our milk shed is spending any significant amount of money to unlock this potentially enormous market abroad, it is the best kept secret of our age.

My reason for bringing up these points is simply to illustrate how much we could do to help ourselves. The alternative is to admit that we in the business haven't the know-how or the leadership, and that we have lost faith in the competitive free enterprise system to guide producers as to the quantities of milk each one should produce.

For those people with such beliefs and attitudes the popular thing is to turn the problems over to the government experts, on the assumption that they know more about running our business than we do. The "problem" then begets a "program," which soon spawns more "problems," and the government is in the business for keeps.

Lest we forget — high support prices on cotton opened the door for synthetic fibers and lost a portion of the cotton market for good. We have done a pretty good job of pricing ourselves out of the butter market with high support prices over the past several years. Under the proposed supply management program we will have higher support prices dependent on the whim of one man, and we may well lose some more of the butter market to the margarine trade.

Common Market

Possibly we should remind ourselves that dairy products are one of the items listed for export by the European Common Market countries. If we make trade agreements with them, as expected, and go for the bait of higher support prices at home, European dairy products should have no trouble underselling ours here. Our local supermarket would then offer us, here in the heart of the Northeast dairyland, a choice of margarine or European butter. Meanwhile, our own butter

(Continued on Opposite Page)

(Continued from Opposite Page)

would pile up in government warehouses, thanks to the generosity of United States taxpayers—who just might get tired of subsidizing us one of these days!

There are many additional arguments pro and con about this supply management program. To my notion, the need to keep from pricing ourselves out of a market is of primary concern. I am convinced that the security of a government program (subject to political pressure and whim) does not match the opportunity available to a dynamic, forward-looking, free group of dairymen each running his own business. If we will use the horse sense we were born with to pull together to advertise and promote our product, and if we will spend an appropriate amount of research for new uses for dairy products, we can lick this thing ourselves and retain what freedoms we still have.

A FARM AUCTION

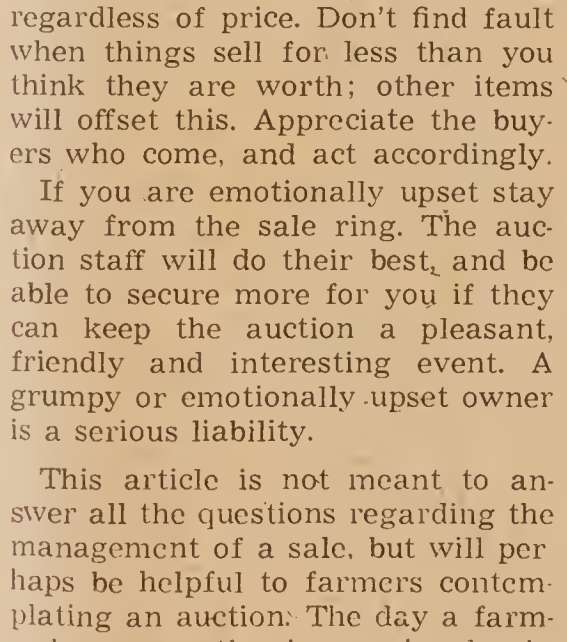
(Continued from Page 10)

there are chattel mortgages or judgments to consider. He will know how to handle this kind of situation so that no difficulties will arise on sale day. Thus the creditors will be helping your sale rather than sending the sheriff's department out to protect their interest.

Under no circumstances have bidders in the crowd. The public will immediately sense this and will simply not bid against the owner. Inspire confidence by expressing to your friends that everything sells regardless of price. Don't find fault when things sell for less than you think they are worth; other items will offset this. Appreciate the buyers who come, and act accordingly.

If you are emotionally upset stay away from the sale ring. The auction staff will do their best, and be able to secure more for you if they can keep the auction a pleasant, friendly and interesting event. A grumpy or emotionally upset owner is a serious liability.

This article is not meant to answer all the questions regarding the management of a sale, but will perhaps be helpful to farmers contemplating an auction. The day a farmer has an auction is a major day in his life. Careful planning and competent management will add greatly to the net returns he receives for his life's work.



"You're always telling me everything Mom says goes—why don't you just ask her to say 'tractor'?"

I Buy Produce for a "Chain"

(Continued from Page 8)

able in fresh form only during the local growing season, are now available nearly all year.

Not only must individual operators keep up with progress, but also marketing organizations, representing the interests of a particular commodity group, must be aggressive, up-to-date promoters for their commodity. For example, in the middle of September, I was visiting my home near Rochester, New York. Local papers were highlighting the record-breaking apple crop, yet retailers I visited were handling only the 3-pound bag of MacIntosh apples. At 1961's reasonable retails, it seemed to me that most customers would have purchased a 4-pound or larger bag just as quickly. There was also an abundance of potatoes, yet most retailers were handling only a 10-pound package. At the time, both of these commodities were returning a relatively low profit to the grower, but active promotion to get retailers to cooperate would, I'm sure, have helped move the overabundance.

Supermarkets are always looking for advertising and in-store point of sale material to help move an item; organized promotional campaigns are effective in developing new markets and expanding old ones. Prior to last winter, Memphis, Tennessee, had always been a red potato city, but a strong promotional campaign sold a considerable quantity of Maine potatoes there. New York State raises an excellent spud; by aggressive promoting in certain areas, its market could also be expanded.

Last year there were times when Long Island potatoes would deliver to Toledo, Ohio, for approximately the same cost as those from Michigan. Being a native New Yorker, I tried several Empire State loads and generally found them superior in quality. Undoubtedly, more would be used in this area if more buyers had realized this fact—a "brand" campaign could be successful for this and other items.

Perhaps my thoughts may be best summed up by an experience that happened several months ago. Lettuce, a key item in all produce department, is purchased by more customers daily than any other vegetable. During the summer months we generally buy from the eastern half of the U. S., thereby reducing freight costs which often equal half or more of the delivered price on western lettuce.

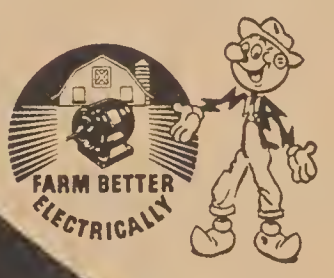
One week early in July, I purchased lettuce from California, Wisconsin, Michigan and New York State. The lettuce from New York, although costing slightly more than from the other eastern regions, was far superior in weight, color and freedom from decay. The shipper had used a good container and the truck arrived on time, for the next several weeks we used New York lettuce.

But the lettuce situation does not stop there—California suppliers are attempting to develop a method whereby they can ship it already trimmed and wrapped. All the store operator will have to do is place it on display. Undoubtedly, this breakthrough will also be accompanied by an advertising program. Most supermarket operators will be demanding such a package and other areas will have to include this new service in their operation if they are to remain competitive.

Yes, there have been a lot of production and marketing advancements, and there will be a lot more —the competitive nature of food retailing demands it. But any buyer will tell you, "When the shipper's making money, he's easier to do business with." That's why most of our suppliers think we aren't such tough guys to deal with. Actually, we aren't easy going, but these growers have adjusted themselves to meet our needs, which are really the **needs of our customers.**



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That's right . . . it's a fact . . . 98% of the Ford 250 baler owners polled report pure and simple over-all satisfaction with this machine. Here's how votes of confidence stack up:

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Convenience of servicing pick-up	94%	Operation of jack	99%
Adjustment of plunger	94%	Appearance of baler	99%
Action of sweep fork	93%	Quality of paint job	94%
Weight of bales	99%	Ruggedness of construction	99%
Straightness of bales	95%	Quality of welding	97%
Capacity of baler	97%	Tires	95%
Operation of knotter	93%	Operating instructions from dealer	97%
Operation of overrunning clutch (on PTO model only)	98%	Owner's manual	97%
Power of baler engine (on engine model only)	96%	Parts availability	94%
		Condition on delivery	93%

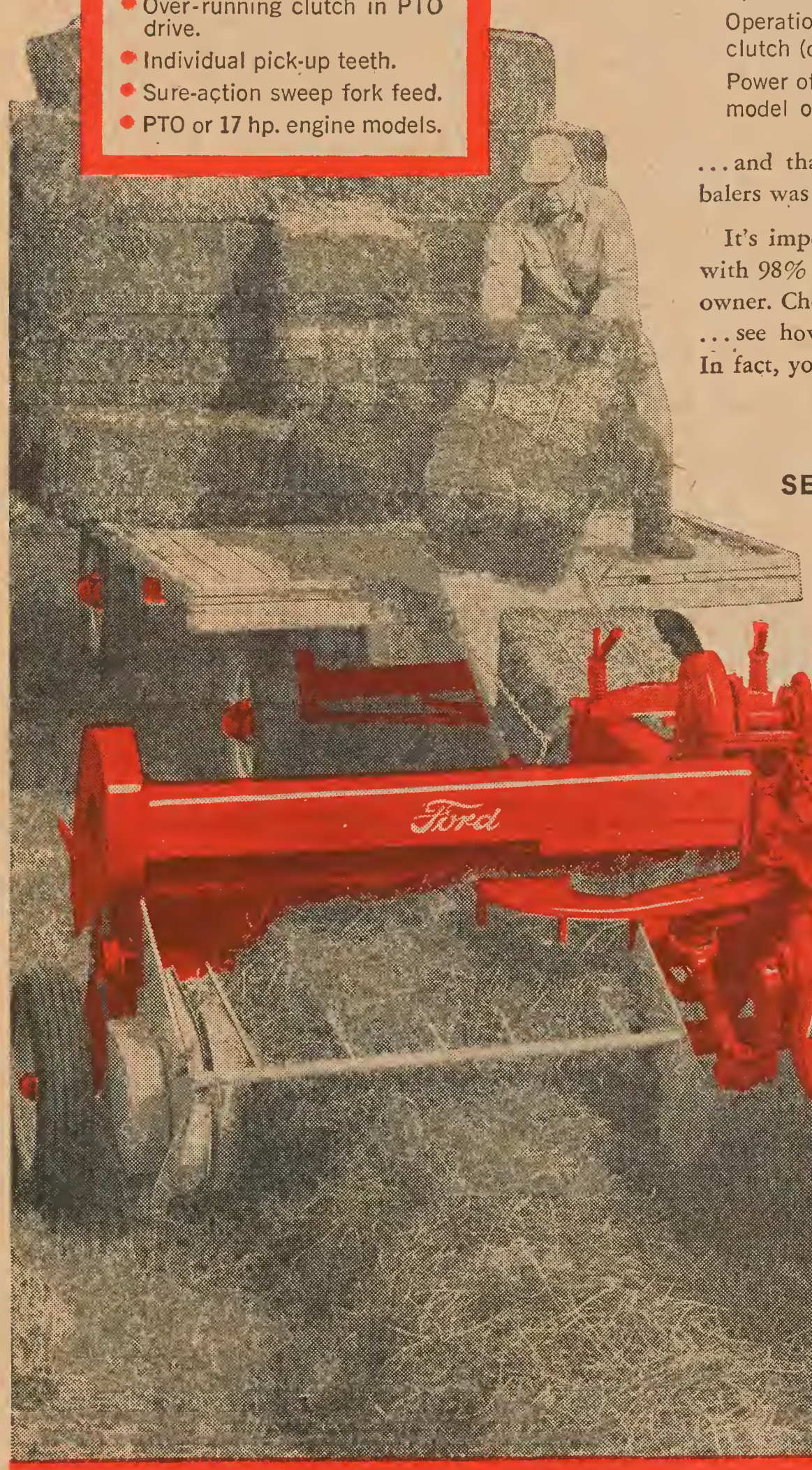
. . . and that's not all! The average number of bales produced by these 250 Ford balers was 6,400 bales; nearly half of them baled over 5000.

It's impossible to be perfect with a man-made product. But this Ford 250 baler with 98% owner satisfaction comes pretty close to completely pleasing nearly every owner. Check with your Ford tractor and implement dealer about your baling needs . . . see how a Ford fits your farm. See about Pay-As-You-Farm credit terms, too. In fact, you should see Ford's *complete* haying line.

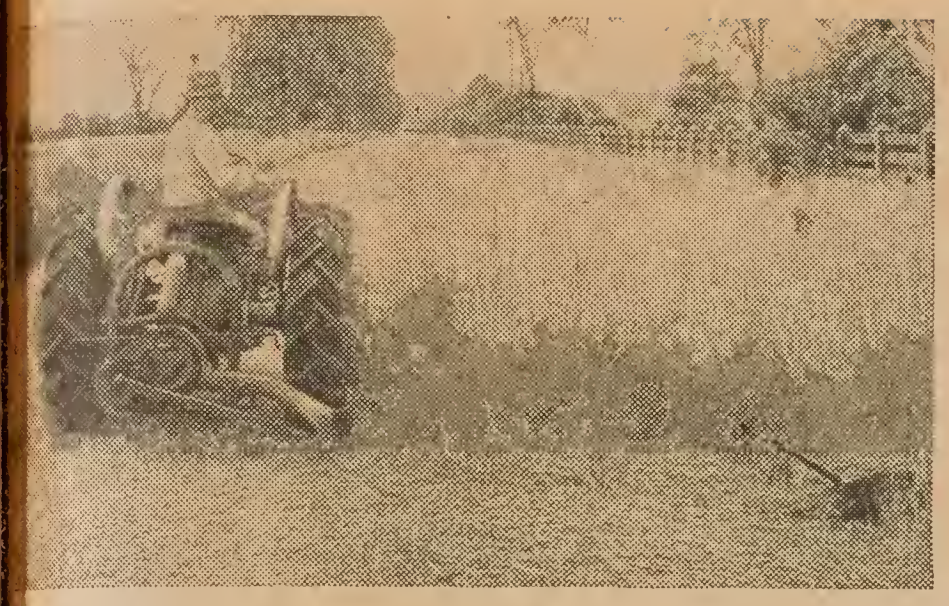
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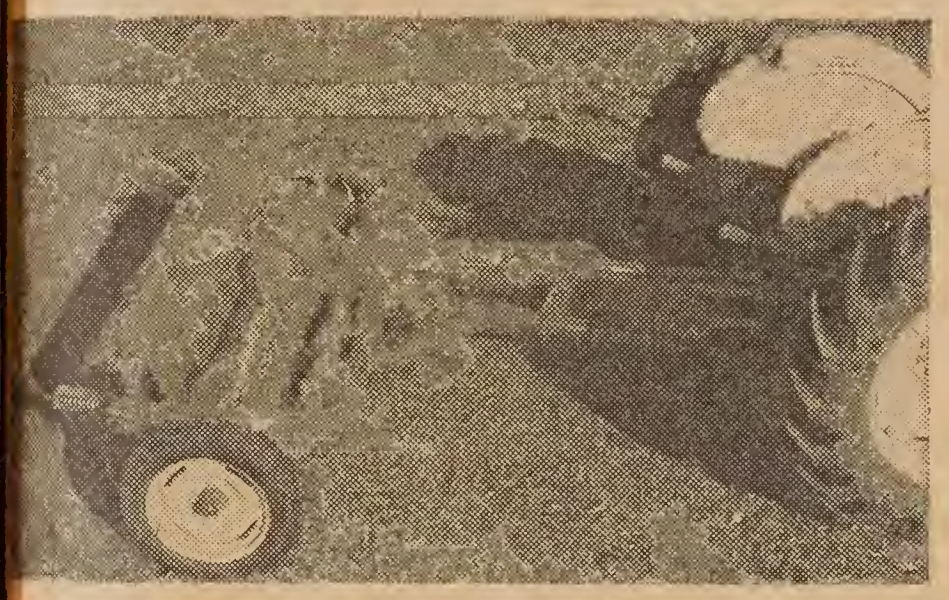
The squarest, handiest, stay-tied bales you ever saw come from the Ford 250 baler that's proved itself thousands of times on thousands of farms.



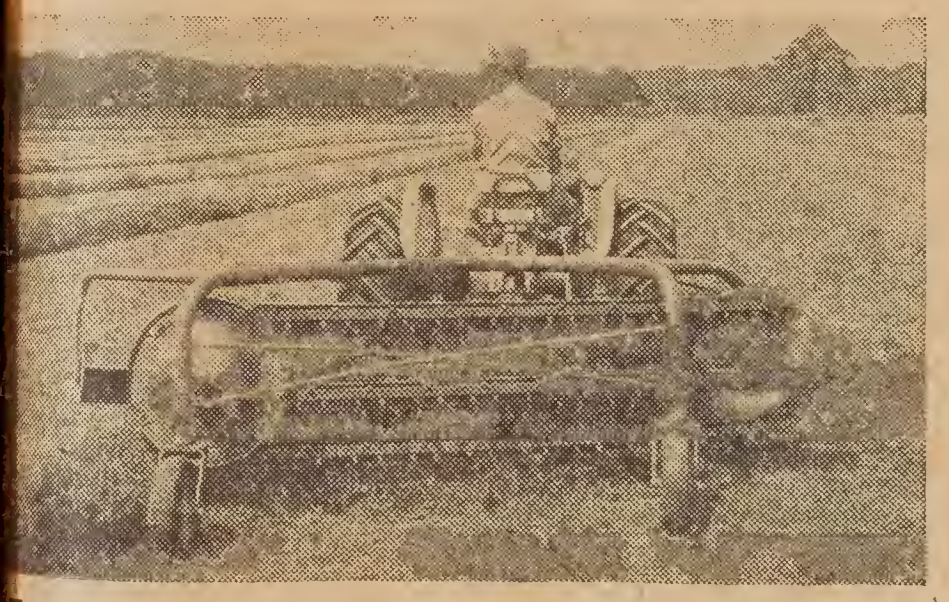
FORD 250 HAY BALER



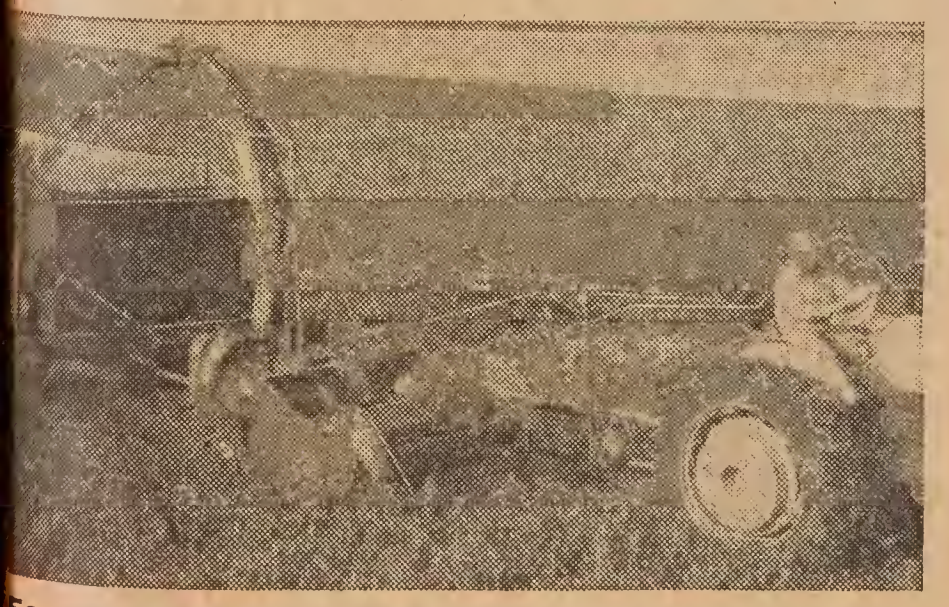
Ford rear mounted mower—Fast haying pays. Get a good start with a Ford. The 8-foot model will mow nearly 6 acres per hour. There are 6- and 7-foot models available, too! All are designed for narrow or wide tractor wheel spacings. They're full adjustable, have high lift... also safety releases. You'll like the easy 3-point hitch, smooth V-belt drive.



Ford hay crusher ... for the ultimate in shortening the drying time! Rubber crushing roll running against fluted steel pick up roll is ideal for those who prefer a crusher. Has safety slip clutch. Uses standard auto tires. Available in PTO pull type model that works on both 540 and 1000 rpm. See this hay crusher, soon. Also see Ford's semi-mounted and pull type hay crimper conditioners.



Ford mounted side delivery rake—Handy pick-up-and-go rake for faster haying! This one "rides" to the field fast... can be quickly raised over obstructions to prevent damage when raking... can be backed into tight spots without jack-knifing. Eight-foot raking width allows 4 acres per hour capacity. And you save more leaves with less hay movement from swath to windrow.



Ford Forage harvester with cutterbar. This 3-in-1 harvester has pick-up, cutterbar and row-crop attachments... comes with PTO or engine drive. It features 3/8- to 4-inch cut, built-in knife sharpener, quick-shift feed control, 4-edge shear bar and separate drive blower. All this plus 5-position hitch and 3-position axle for 12-, 15- or 18-inch clearance.

All right, fellas, never mind the scenery. The subject at hand is small engines.

Care of Small Engines

By TOM CLAGUE



SMALL engines have become quite common in recent years — on lawnmowers, garden traetors, portable generators, pump jaeks, ete. In general, these engines are usually eapable of delivering far better service than they aetually do.

Often this is beeause a small engine is "just run," without the care that a larger, more expensive engine is given. Yet all engines are built with the same principles, and good eare will always pay off in longer service life.

In fact, the service department of one major manufacturer of small engines says that the most eommon problem with their engines is just plain dirt, duc to two kinds of neglect: (1) improper care of the **air cleaner;** (2) failure to ehange **oil** regularly.

Use Manual

The best place to start with small engine care is right in your manual. You'll find it contains specifie instructions about the model of spark plug to be used, earburetor setting, kind of oil, fuel, and fuel-oil mixture, if the engine is two-cyele.

If you ean't find the manual, find the identification place on your engine. Take the model and serial numbers, then send them to the manufacturer, whose address is also listed on the plate. Ask him for a new manual. He'll be glad to send you one.

You may be wondering whether you should use "white gas" in your small engine. There is talk about it around the "grapevine"—and it's not all hot air, either, although a major manufacturer reeommends "regular" gasoline.

Here is the situation: as engine dcsigners have gradually increased the eompression ratio for more power in truck, tractor, and automobile engines, the gasoline makers have added more and more tetraethyl lead to gasoline to increase octane ratings. This controls detonation or "pinging," which robs power. There are other additives in gasoline, too.

There is more ehance that a gasoline with additives in it will leave deposits inside an engine than will a gasoline with no additives—which is what "white" gasoline is. And since thesc small engines are pretty tiny inside, deposits might be some what more of a problem than with a larger engine. However, since maximum power output and pinging are not often major problems with these small engines, it would gencrally be possible to use a lower octane fuel satisfaetorily—such as "white" gasoline. But since it is not readily available to some owners of small engines, and sineè "regular" gasoline gives satisfactory service, you should feel safe in using "regular."

The air eleaner may not look very big, but it's just as important as a big one on a big engine. It keeps out the dirt that will ruin your engine in very short order—even just a few hours of operation. Keep it elean and be sure that all gaskets are in good condition, because any air that may leak in through a defeetive gasket will not bc filtered through the cleaner, and so will endanger your engine.

Check Oil

Keep plenty of oil in the erankcase; more than once an engine has been ruined beeause it ran low on oil. And change the oil when it gets fairly dirty, or low. One of the problems with these small engines is that it's not easy to keep track of how long they have run, and so you don't know when the oil should be ehanged.

But one thing is certain, it's good eeonomy to change oil frequently, and always to keep the crankcase full. Your manual will specify what oil should be used — probably SAE 20 for summer operation, and perhaps SAE 10 for winter.

Looking ahead to next fall, it's a good idea to make a mental note about getting your engines ready for their long winter's nap. When you finish work for the season, a few minutes spent in preparing for storage can save a lot of grief later. First, let the engine run until the fuel is all gone. This way, no gasoline is left to form gum, which can happen over a long period of idle time.

Then remove the plug and put in a spoonful of oil. Turn the engine over a few times to get the oil spread around inside, to help protect piston, rings and cylinder walls. It is also wise to drain the oil and refill with new oil, for maximum protection.



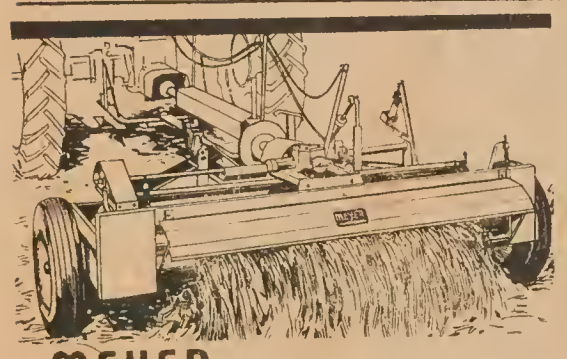
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Strawberry Plants. Empire, Premier, Robinson and Sparkle $3.25 each 100. Superfection everbearing $4.75-100. Red raspberry plants, Latham, Taylor and Durham everbearing $8.00 each 100. Virus free, fresh dug. Phone UP7-5515. MACDOWELL BERRY FARM, BALLSTON LAKE, NEW YORK.

Vegetable Herbicides

(Continued from Page 1)

Solan is the first contact type weed killer which has proved safe in tomatoes. It kills weeds by burning their leaves, growing points, and small stems. Solan works best on weeds just emerging from the soil. Although lambsquarters or smooth pigweed can be easily killed when it is a foot or more tall, grasses like crabgrass and foxtail can only be controlled if sprayed in the early seedling stage; other weeds are intermediate. Transplanted tomatoes can be sprayed whenever the weeds are a problem without danger to the crop; however, field-seeded tomatoes may be killed if treated while they are still small seedlings. Follow the label and trouble will be avoided.

Other Crops

Asparagus is a small acreage or home garden crop in some areas, but it has king-size weed problems. Quackgrass can be controlled by using Dalapon; ordinary weeds are susceptible to Monuron.

Dry and snap beans are one of the Northeast's largest vegetable crops. Annual weeds can be controlled with Dinitro applied pre-emergence to the crop. Use either the liquid or granular formulation. Where nutgrass is a problem, use Eptam prior to planting; granular is preferred.

Beets are becoming a highly specialized crop for processing. No truly safe and effective herbicide is available, but growers are using the boron needed for beet nutrition as a concentrated spray at time of planting. This gives good weed control, but under some conditions stunts the crop. It is not known how this method of boron application will influence beet nutrition in dry years.

Lima beans can be handled by using Dinitro, as with snap or field beans. However, since Eptam is not safe on limas, avoid planting them on nutgrass infested fields.

Carrots are the vegetable crop for which the first selective chemical herbicide became available. Stoddard Solvent was discovered at Cornell 18 years ago and is still the standard recommendation.

Cabbage, cauliflower, and broccoli are important crops for which, until this year, no truly selective chemical has been available. However, Dacthal looks very promising.

Celery is a specialty crop that can be kept weed free by using Vegadex as a preventative; watering-in this chemical helps its effectiveness. Celery plant beds should be sprayed with Stoddard Solvent because Vegadex is not safe on seedlings.

Cucumbers can be kept clean by using Alanap 3 on bare soil as a weed preventative. It needs rain or irrigation to be effective.

Lettuce and endive when transplanted can be treated with Vegadex as a preventative. If field-seeded, these crops are not truly tolerant of Vegadex, particularly when grown on muck.

Muskmelons and watermelons, whether seeded or transplanted, are easily kept weed free with Alanap 3, if it is applied as a preventative and if it is washed into the soil by rain or irrigation.

Onions are primarily a muck crop in New York. On this type soil, Randox alone or in combination with Chloro IPC is a very effective treatment—several applications are needed. On mineral soils, the new Dacthal shows promise.

Peas are easily kept weed free by Dinitro sprays at low rates when the weeds are 1-2 inches tall.

Peppers and eggplant have received little research attention in the Northeast and no suggestions are offered.

Potatoes have many different weed problems. Early weeds can be handled by tillage, or by Dinitro sprays as listed for beans; quackgrass can be controlled by Dalapon; nutgrass turns up its heels to Eptam. Both Dalapon and Eptam are safe on potatoes. Late weeds and grasses may be controlled by mid-season applications of Eptam or Randox.

Spinach has received many years of research work, but no truly safe and effective herbicide is known.

Squash and pumpkins, because of their rank growth, usually have no serious weed problems if the early weeds are controlled. Use Dinitro as for beans at the time the crop seeds first show white sprouts.

Sweet corn growers have three good choices of chemicals. A very cheap and fairly effective one is 2,4-D, but it is dangerous to other crops and ornamentals. Dinitro is safe, but relatively expensive, and only controls early weeds. Atrazine is very effective, fairly expensive, but unless sparingly used can carry over to damage the next crop if other than corn.

Tomatoes show promise of being easily weeded with Solan, the new chemical already described.

Dry Or Liquid?

For the last five or six years, agricultural research workers have been investigating dry granules as carriers for herbicides. They appeal to many people because of their ease of application as compared to liquid sprays. Most growers like the idea of no plugged nozzles, no water to carry, no pump or hoses to go bad, etc.

As with any new development, it's not all as rosy as it may seem at first glance. First of all, although some chemicals perform very well in granular formulations, others may do very poorly as compared to liquid sprays. Secondly, with granulars, the **diluted** chemical is shipped from the formulating plant to the farm and this costs more than shipping a chemical concentrate and having the farmer dilute with water. Third, dry granulars require special application equipment of an entirely new design. As is to be expected, the early designs were not particularly satisfactory, but each year important improvements are being made. Getting a performance guarantee from your dealer before investing would seem to be a wise precaution.

Only a few vegetable herbicides are effective against perennial weeds like quackgrass and nutgrass. These weeds are so different from the general run of annual broadleaves and grasses that special programs are needed to insure their control. Generally, use of chemicals plus thorough tillage or cultivation at the right time is more effective than trying to do the job with either chemicals or tillage alone.

Special Weed Problems

Quackgrass starts early in the spring and thrives until mid-summer. It then tends to be "dormant" until cool fall rains occur, at which time it again thrives until hard freeze-up time. Nutgrass, on the other hand, starts late and grows well all season until the first frost. It makes nuts or tubers during the summer and fall; even small plants will produce tubers in September and early October. Thus, the vulnerable time for "quack" is often late spring or early summer, whereas with nutgrass the plant should be controlled before it makes new tubers.

Beans, corn, potatoes, and tomatoes are large acreage crops which can be planted on nutgrass or "quacky" fields because effective safe chemicals are now available to help control these pests. Atrazine for corn, Eptam for beans, Tillam for tomatoes, and Dalapon for potatoes are examples—contact your county agent for specific suggestions.

Some Rules

Here are some general principles for fighting weeds with herbicides:

1. Plan the weed control program **before** the crop is planted. Some herbicides are preventatives, others work best on small weeds—none can clean up a crop after it is badly overrun with weeds.

2. **Follow the label** and the county agent's instructions. Chemicals can be ineffective or even dangerous if not used correctly. Anyone unwilling to do the job right should leave the herbicide on the shelf.

3. Be sure the **equipment** is designed to apply the herbicides in sufficient volume of water. Some weed sprayers are not suitable because they will only apply 5 or 10 gallons of spray on an acre, whereas 30-40 gallons are usually required for vegetable herbicides.

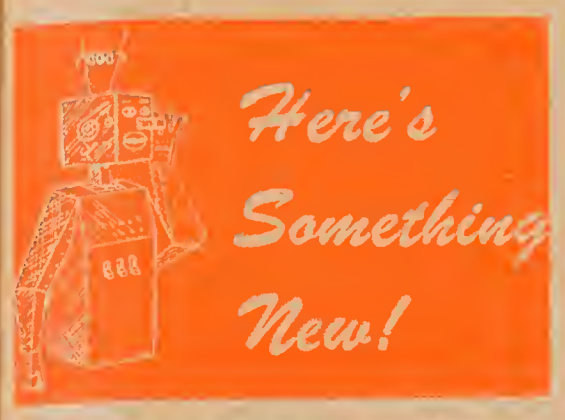
4. Clean and adjust the nozzles and check the pressure regulator so that the spray will be **uniformly applied.** Worn or dirty nozzles, or incorrect operating pressures, will cause streaking and uneven spray application.

5. Drive the tractor at precisely the **right speed.** Use a speedometer, not a particular throttle setting, to get accurate and steady speed. Changing the speed from 3 to 4 miles an hour will make about a 30 percent difference in quantity of spray applied on an acre.

GARDENER OR GROWER

Want more details about the use of chemicals to control weeds? New York State commercial vegetable growers will find a wealth of information on this and related subjects in a publication entitled "1962 Vegetable Production Recommendations." They may obtain it by contacting their county agent or writing to the author at Vegetable Crops Department, East Roberts Hall, Cornell University, Ithaca, N. Y. In other states, growers should contact their county agent or their College of Agriculture for similar publications.

Home gardeners in any of the northeastern states may send to the author at the address given for a free copy of "Chemical Weed Control in the Home Vegetable Garden."





Next stop—a supermarket.

It "Breathes" – The young lady pictured above is operating a lettuce-wrapping machine. The waste wrapper leaves are discarded and the lettuce wrapped in Trycite 1000, a polystyrene film that permits the proper exchange of oxygen, carbon dioxide, and water vapor within the package. This has the result of getting lettuce to the consumer in excellent condition and in an attractive package.

New Sprayer – A new field and row crop boom sprayer has been developed which uses airfoil spraying. A centrifugal pump moves the spray material from the fiberglass tank to the sprayheads, where a blower assembly takes over and sprays the chemical over aerodynamic foils and onto the crop, enveloping it in a cloud of fog which achieves good coverage and penetration.

The sprayer is available in standard widths (either 33 or 40 feet with booms extended); wheels can be spaced from 48 to 96 inches apart; and sprayheads can be easily detached to vary patterns of spraying for different crops. The fiberglass booms are adjustable for ground clearance from 20 to 66 inches.

For more information, write to Sprayfoil Corporation, 222 West 82nd Street, Minneapolis 20, Minn.

Insect Controls – Scientists have been successful in completely eliminating reproduction in several species of insects through the use of chemosterilants. Following five applications on a population of house flies in an isolated refuse heap on a small, uninhabited island, only a few flies were found, and of those 99% were found sterile.

Another technique being tried involves treating insects with a particular chemical that kills their urge to eat, thus literally starving them to death.

Slicked Chicken – During the past two decades poultry has gone through many changes in the way it is presented to the housewife. Now the researchers are working on ways to coat poultry at the processing plant to hold moisture and possibly to retard the growth of microorganisms.

Ohio Agricultural Experiment Station's Department of Poultry Science has been testing a seaweed-type coating. The cut-up poultry is dipped first in this coating, then in a calcium solution which forms an edible film. Stored for 12 days at 35°F, the chicken lost 8% less moisture than untreated control groups.

The films cost about 3/10th of a cent for each pound of chicken coated, much less than other coatings tried. The chicken can be deep fat fried without further coating. The film, which contains 95% moisture, disappears during frying.

CA For Tomatoes – Pennsylvania State University has been experimenting with controlled atmosphere storage for tomatoes. It was found that mature green tomatoes (the stage at which market fruit is picked) stored at 55° F in an atmosphere of 10% oxygen, 5% carbon dioxide, and 85% nitrogen maintained marketable quality for 35 days. This would, of course, lengthen the fresh market tomato season.

Fruit stored under these conditions ripened uniformly in five days when held at room temperature in ordinary atmosphere, as compared to 10 days for unstored mature green fruit. No improvement in quality was noted. Attempts to store "pink" tomatoes under controlled atmosphere were not successful. Once pigment development started, normal ripening processes could not be retarded.

Mature green tomatoes stored at 55°F under ordinary atmospheric conditions maintained a marketable acceptable quality for a maximum of 14 days, but fruit held longer would not ripen uniformly and deteriorated rapidly.

Beneficial Parasite – A wasp which lays and hatches its eggs in the larvae of the alfalfa weevil is being released in several eastern states.

Since most of the feeding on alfalfa is done by the weevil larvae, the parasite doesn't reduce damage the first year. The benefit will come, it is expected, from reduced weevil populations in following years. Scientists believe it will take several years for the wasp to become established in this section of the country.

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BURLINGTON, VT.	1.03	.95	.90	48.00	91.00
RUTLAND, VT.	1.01	.92	.87	54.00	98.00
ALBANY, N. Y.	1.00	.88	.83	72.00	119.00
BUFFALO, N. Y.	1.03	.91	.86	72.00	119.00
GETTYSBURG, PA.	.88½	.78	.73	63.00	108.50
LANCASTER, PA.	.88½	.79	.74	57.00	101 00

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Stamford	.85	.80
Delaware		
Dover	.76	.71
Maine		
Augusta	.99	.94
Bangor	1.02	.97
Portland	.96	.91
Maryland		
Baltimore	.76	.71
Massachusetts		
Gardner	.92	.87
Lawrence	.93	.88
Worcester	.91	.86
New Hampshire		
Concord	.94	.89
Manchester	.93	.88
New Jersey		
Trenton	.80	.75
New York		
Binghamton	.88	.83
Elmira	.86	.81
Jamestown	.90	.85
Malone	.97	.92
Montauk	.92	.87
Ogdensburg	.95	.90
Oswego	.91	.86
Peekskill	.85	.80
Poughkeepsie	.86	.81
Syracuse	.90	.85
Utica	.90	.85
Watertown	.93	.88
Pennsylvania		
Altoona	.82	.77
Bethlehem	.81	.76
Canton	.84	.79
Coatesville	.79	.74
Erie	.90	.85
Fairmount	.86	.81
Hanover	.77	.72
Harrisburg	.79	.74
Hazleton	.83	.78
Lansdale	.80	.75
Mansfield	.88	.83
Philadelphia	.79	.74
Reading	.80	.75
Scranton	.84	.79
Towanda	.85	.80
Rhode Island		
Providence	.91	.86
Vermont		
Burlington	.95	.90
Newport	.98	.93
Rutland	.92	.87

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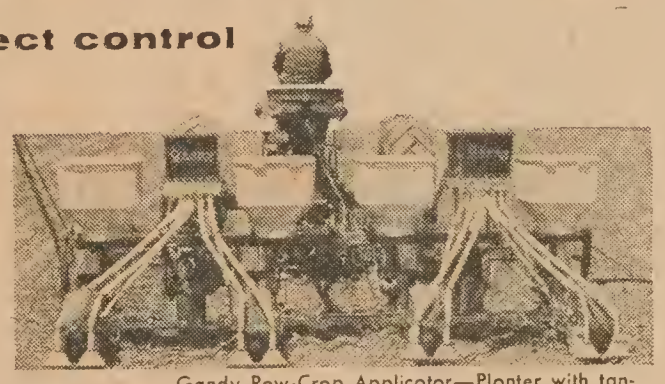
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The 1962 Farm Bill Concerning Milk*

TWO SECTIONS of the proposed **Food and Agriculture Act of 1962** pertain particularly to milk. Proposed changes in **federal milk marketing order** enabling legislation are as follows:

1. Producer quotas would be authorized under federal milk marketing orders. A special referendum and a two-thirds vote of approval by producers would be required before a quota plan could be put into effect. Producers would be asked to vote separately on quotas so that, if the plan were defeated, existing marketing orders would continue without change.

Quotas would be based on shipments during a "representative" period. No specific base year is suggested in the bill. Likewise, there is nothing in the bill regarding provisions for transferring quotas. Producers would receive lower returns for over-quota milk. The bill does not prescribe a specific price for over-quota milk but states that the minimum price that could be paid for such milk is one-fourth of the lowest class price established under the order.

2. New standards for pricing Class I milk in federal orders would be adopted if quotas were in effect. The fluid price under such conditions would be related to the national average parity price for milk rather than adjusted on the basis of local supply and demand conditions.

3. Deductions from producers to finance market development and research programs (but not paid advertising) would be authorized. Such deductions would be made only if approved by a two-thirds vote of producers. Voting on a producer-financed market development and research programs would be separate and would not affect the existing order.

The preceding provisions would apply only to federal order markets and would be entirely permissive. Each federal order market could decide for itself whether or not to adopt quotas or make deductions for market development and research. In addition, the bill would authorize the adoption of a national quota plan that would affect all those shipping milk, including producers not operating under federal orders. A national quota plan could be put into effect regardless of whether or not individual federal order markets adopted quota plans. Authority to coordinate such plans is provided if both federal order and national quotas are in effect.

National Plan

Provisions in the Act relating to the proposed national milk quota plan are as follows:

1. Every individual who shipped milk or plans to sell milk would be assigned a marketing base. This would equal the total quantity of milk (or milk fat) sold in 1961—or such other 12-month period as the Secretary decided might be appropriate. Rules and procedures for adjusting bases and handling hardship cases would be established by the Secretary. Local ASC committees would assist in determining bases and making adjustments.

Producer bases could be transferred between farms within limits imposed by the Secretary. In general, transfers within the same state or between adjacent states would be permitted. Under certain conditions, the Secretary could purchase bases offered for sale by producers. Bases purchased by the government could be canceled and thus would not be available for resale to other producers; in this way, the total quantity of base might be reduced.

2. Producers would be issued marketing allotments each year. These allotments would equal a uniform percentage of each producer's base. The percentage of base that each producer would be able to ship without paying penalties would be determined by the Secretary. The total quantity of allotments issued by producers would be established at such a level as to limit government acquisition costs of surplus dairy products to a maximum of $300 million annually, plus the value of penalty payments collected from producers.

Before each marketing season, a referendum by secret ballot would be conducted among producers. The allotment program would go into effect only if approved by two-thirds of those voting.

3. Producers could ship any quantity of milk they desired but would be required to pay a penalty on all milk delivered in excess of their allotment. Penalties for over-allotment milk would be established by the Secretary. No specific level is mentioned, but the bill states that it could not exceed $2.75 per hundredweight. Penalties would be deducted from producer returns by the first handler or processor and sent to the Commodity Credit Corporation.

4. The level of support for manufacturing milk would depend on whether or not producers approved allotments by a two-thirds vote. The Secretary would be required to specify the level of support that would prevail with and without allotments prior to the annual referendum but no later than February 1st of each year.

No lower limit but an upper limit to the support price is specified in the bill. Supports could not exceed 90 percent of parity. They would be maintained as close to this level as the Secretary deemed appropriate (subject to the condition that CCC acquisition costs of surplus dairy products could not exceed $300 million plus the value of penalty fees collected annually) provided producers accepted marketing allotments.

If producers failed to approve allotments, supports on manufacturing milk would be held to a level that would limit the acquisition of surplus dairy products by the Commodity Credit Corporation to those quantities that could be utilized effectively in surplus outlets at home and abroad and whose cost was less than $300 million annually.

*Material prepared by Profs. K. L. Robinson and R. P. Story, Cornell University

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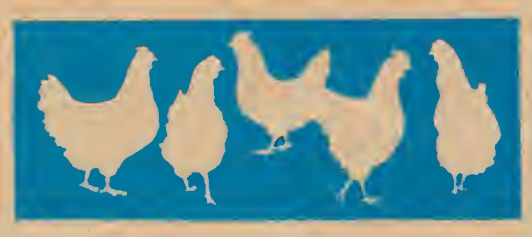
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ARE EGG PRICES ON THE LEVEL?

TOO often the egg pricing system has been blamed for low prices that actually result from increased or so-called over-production. We tend to confuse the **level** of prices and the **mechanism** by which quotations or prices are determined.

What is this mechanism? It consists of two parts: (1) the price reported for a given class of transactions (usually the Urner-Barry quotation) is used as a base price; (2) the differential which relates the base price to the price of particular lots of eggs at particular points and levels of sale is negotiated.

These two parts help distinguish between **establishing quotations** and **reporting prices.** For example, the egg trade is generally accustomed to the base price quotation system for table eggs for immediate consumption. Alternative outlets to the table egg market are hatching, storage, breaking and export.

Hatching egg prices are often related to table egg prices; the prices paid for storage eggs are more closely related to the future's market than to current spot prices; prices for breaking stock and export packs are determined to a considerable extent by forces outside the domestic table egg market. Yet in each of these the base price quotation system exerts some influence, or is a convenient starting point for negotiations.

What Is Wrong?

It has been said that in order for a central market price quotation to be satisfactory, several requirements must be met, such as:

1. A large enough volume of trading to be representative of the market area.
2. Prices must be reported accurately.
3. Price reports must be sent quickly over the market area.
4. The quotation must reflect "true values" for eggs in the supply and demand situation.

With modern market information services, prices are quickly communicated to buyers and sellers, and the reporting accuracy is unquestioned. However, the volume of trading on which many quotations are based is insufficient. Therefore, what is wrong is not technical but mechanical.

Alternatives

The three main alternatives are: (1) administered pricing; (2) decentralized prices; (3) committee pricing.

If the industry became more highly integrated, administered pricing could result.

Under decentralized pricing, negotiations would take place at widely scattered points.

Committee pricing deserves serious and intensive study. In effect, this would mean setting quotations by impartial committees, and it could have great advantages in terms of stability and permanency.

ED. NOTE—*This is a digest of remarks by George B. Rogers, Head, Poultry Section, Agricultural Marketing Service, USDA.*



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What dairy farmers think



IS Important

We're taking one of the biggest polls ever made of dairy farmers in this area to discover feelings about the Kennedy administration's farm program so we can do the best possible job of farmer representation. Through our member publication The Metropolitan Milk Producers' NEWS, 48,000 dairy farmers in this milkshed will have an opportunity to answer questions like these:

1. Do you favor controlled production with higher support prices or allowing price alone to control production?
2. Do you favor the suggested national production control program?
3. Should dairy cooperatives own manufacturing facilities to increase bargaining power?
4. Should our advertising and promotion program have all producers contributing equally?

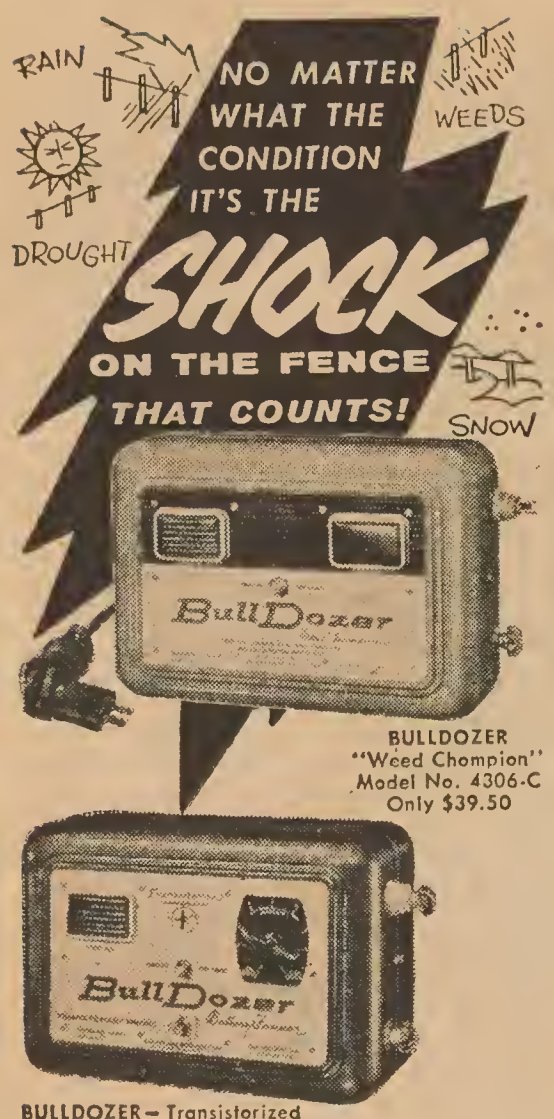
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Garden Reference File For Town and Country

IT'S FINE to **dream** about those luscious fruits and vegetables you are going to raise this year, that smooth lawn, and the beds of colorful flowers that will grace your garden. But these goals will not be achieved without getting down to fundamentals.

Here is where your Extension Service can be of great help. Every State College carries a list of bulletins, pamphlets and circulars on almost every subject under the sun. To help you choose which will be most helpful in your gardening projects we are listing below some of the material available, by colleges.

In most states, single copies will be mailed free of charge to State residents as long as they last; additional copies can be had for a small charge, or they may be available at your county agent's office. Climatic and other conditions vary with regions, and as a rule you can save time and money and get better results by using the material issued by the institutions in your own state. But if you see a bulletin listed under another state that you would like to have, it will be made available to you for a small service charge. Address your requests to the Mailing Room at the college addresses given below.

Persons interested in agricultural or garden publications issued by the federal government can obtain a list from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

The **University of Connecticut** at Storrs informs us that at present they are in the process of revising their bulletin list and it will take some time to bring it up to date.

University of Maine, Orono

301—Lawn Care
363—Flower Gardening in Maine
374—Vegetable Varieties for the Maine Home Garden
419—Home Gardening in Maine
258—Spraying Peaches, Pears, Plums, and Cherries
403—Fruits for Maine
459—Growing Strawberries for Profit or Pleasure
334—Sprays and Dusts for the Home Fruit Grower

University of Maryland, College Park

EB 125—Sprays for Home Fruit Plantings
EB 141—Home Vegetable Gardening in Maryland
EB 150—Pruning Ornamental Trees and Shrubs
EB 164—Rose Culture
EB 165—Growing Azaleas
EB 168—Controlling Insects of Ornamental Trees and Shrubs
EB 171—Care of Lawns
EB 174—Fertilizing Ornamental Plants and Shrubs
EB 180—African Violets
FS 70—Worms on Corn in the Home Garden
FS 73—Diseases and Insects of Roses and their Control
FS 93—Landscape Planning for the Small Property
L 15—Maryland Vegetable Varieties

University of Massachusetts, Amherst

A 260—Tuberous Rooted Begonias
A 261—Dahlias for the Home Garden
A 262—Flower Gardens
A 365—Gladiolus
A 291—Pruning Shrubs and Evergreens
A 295—The Japanese Beetle
AX206—Window Boxes
AX271—Fertilizing Shrubs
AX240—Rhododendrons
A 29—Strawberry Growing
A 208—Small Fruits for Home Use
A 264—Fertilizing Home Fruits
A 293—Tree Fruits—Their Place In the Home Garden
A 280—Garden Hedges, New and Renewed
A 294—Lawn Pests
A 312—Lawn Maintenance
AX190—Poison Ivy
AX268—Leaf Scorch of Trees and Shrubs
A 59—Home Vegetable Garden
AX 90—Vegetable Varieties for the Home Garden

University of New Hampshire, Durham

EC261—Rodent Control in the Family Garden
EB130—Care of the Established Lawn
EB104—Growing Vegetables at Home
EF 36—Vegetable Variety Suggestions
EM100—Recent Bulletins and Reports Of Interest to Home and Hobby Gardeners, Garden Club Members, etc.
EM131—Producing Iris for the Home Garden
RM 18—Use of Color and Ornaments by Motel and Cabin Operators

New Jersey Agricultural Experiment Station, Rutgers

C 571—Diseases and Insect Pests of Rhododendron and Azalea
C 480—Growing Beans and Peas in New Jersey Home Vegetable Gardens
E 298—Bush Fruits in the Home Garden
L 239—Evergreens Lose Their Leaves, Too!
C 559—A Variety of Hardy Bulbs for the Spring Flower Garden
S.C. —Spraying Recommendations for Home Orchards
E 121—Garden Iris
L 81—Fifty Small Trees for New Jersey Home Grounds
E 304—Landscape Planning for the Home Grounds
E 320—Lawn Care
L 196—Controlling Crabgrass in the Lawn
C 554—Narcissus in the Garden
L 242—Poison Ivy and Its Control
E 336—Peonies in the Garden
C 481—Growing Tomatoes in New Jersey Home Gardens
L 230—Tomato Disease Control in the Home Garden
C 549—Tulips in the Garden
C 478—Growing Leafy Vegetables in New Jersey Home Gardens
C 479—Growing Root Crops in the Home Vegetable Garden
C 485—Summer Care of the Home Vegetable Garden
L 237—Manual for New Jersey Home Vegetable Gardeners

New York State College of Agriculture, Ithaca

E 729—Control of Small Animals in Homes and Gardens
E 403—The Rock Garden (15c)
E 693—Driveways and Sidewalks
E 749—Landscape Steep Slopes
E 813—Border Plantings and Outdoor Living Rooms for Rural and Urban Properties
E 893—Peony Culture
E 894—The Culture of Garden Chrysanthemums
E 895—The Culture of Iris
E 896—The Culture of Spring-flowering Bulbs
E 897—The Culture of Garden Roses
E 914—The Culture of Gladiolus
E 922—Home Lawns
E 937—The Culture of the Delphinium
E1049—Suburban Gardening
E1064—Ground Covers—Carpets for Outdoor Living
E1070—Recommended Annual Flowers for New York State
J 87—A Flower Garden of Annuals
S 21—Sequence of Bloom of Perennials, Biennials, and Bulbs
E1050—Diseases of Bearded Irises
E 846—Home Storage of Vegetables and Fruits
E 900—Blueberries in the Home Garden
E 943—Growing Strawberries for Home Use
E 191—Poison Ivy and Poison Sumac

The Pennsylvania State University, University Park

L 143—Sprays for Home Garden Fruits
C 469—The Home Vegetable Garden

(Continued on Opposite Page)

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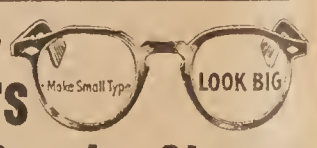
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TIME IS getting very short, but it is still possible for you to join our Grand Circle Tour of Europe, May 9 to June 19. Come with us and see all the famous places you've always longed to visit—glamorous Paris, the French Riviera, sunny Italy, castles on the Rhine, Buckingham Palace, Shakespeare's birthplace, medieval towns in Germany, picturesque Holland, the magnificent snow-crowned Swiss Alps, and beautiful Austria.

AMERICAN AGRICULTURIST offers you a perfectly planned tour in the company of people with whom you'll enjoy traveling. Our tour escort relieves you of all travel details, and the "all-expense" ticket covers everything. This is a truly carefree vacation! Use the handy coupon below and send for the itinerary today.

Alaska Tour Sold Out

Our Alaska Tour was completely sold out just five days after the itinerary was mailed to almost 900 people who requested it. We now have a list of some sixty persons who are waiting for cancellations. We were sure this would be a very popular tour, but frankly we were surprised at how fast the reservations poured in.

We are sorry if you were disappointed in not being able to go to Alaska with AMERICAN AGRICULTURIST this summer, and hope that you will plan to take one of our other tours very soon. It is always an enjoyable experience to travel with an American Agriculturist tour party.

E. R. Eastman, President
American Agriculturist
Box 367-E
Ithaca, New York

Please send me, without obligation on my part a copy of your itinerary for the Grand Circle European Tour, May 9 to June 19.

Name _____

Address _____

Please write plainly

A GARDEN REFERENCE FILE

(Continued from Opposite Page)

C 471—Prevent Vegetable Diseases in Your Home Garden
C 477—Growing Tomatoes in the Home Garden
L 187—Controlling Insects on your Ornamental Trees and Shrubs
L 210—Control Those Grubs in Your Lawn

University of Rhode Island, Kingston

45—Shrubs for Rhode Island
44—Poison Ivy, Its Identification and Control
48—Lawn Insect Control
46—Care and Selection of Trees and Shrubs in Rhode Island
167—Landscape Planning
73—Pest Control for Homegrown Fruits
104—Chrysanthemums
141—Fertilizing Home Grounds
142—Transplanting Trees and Shrubs

University of Vermont, Burlington

C 83—Herbs—Their Culture and Use
C 109—Vegetable Gardening in Vermont
C 123—Insects and Diseases in the Vegetable Garden
Br878—How to Improve your Garden Soil
Br927—Test Your Soil
Br1011—Vegetable Varieties for Vermont
P 16—Tree Fruits for Vermont Gardens
C 131—Sueeessful Lawns
NEC34—Landseape Planning for the Home Grounds
Br862—How to Feed a Tree
Br900—Ideas for Using Flowers
Br901—Tulips
Br1021—Pruning Pointers
P 29—Vermont Spot Weeder
Br1014—Fertilizer Reeommendations for Ornamental Plants

Coming Meetings

April 2-5 —Farm and Home Week, University of Maine, Orono.

Apr. 4—Dairy Farmers' Day, University of Connecticut, Storrs.

April 8, 9, 10—12th Annual Conference of the National Institute of Animal Agriculture, Purdue University, Lafayette, Indiana.

April 13-14 — American Milking Shorthorn Society, Springfield, Mo.

April 17—Annual Meeting, N.Y.S. Guernsey Breeders Cooperative, Auburn, N. Y.

April 21 — Hereford Beef Cattle Show and Sale, Ithaca, N. Y.

May 3 — 13th Guernsey Sire and Bred Heifer Sale, Exposition Grounds, West Springfield, Mass.

May 5—Annual State Meeting of The New York Branch of Cabana Nutria Breeders, Cayuga County Farm and Home Center, Auburn, N. Y.

May 10-12—54th Annual Convention of American Feed Manufacturers Association, Conrad Hilton Hotel, Chicago, Illinois.

May 12—Connecticut Sheep Day, University of Connecticut, Storrs.

May 16 — Annual Meeting of the American Guernsey Cattle Club, Hotel Monteleone, New Orleans, La.

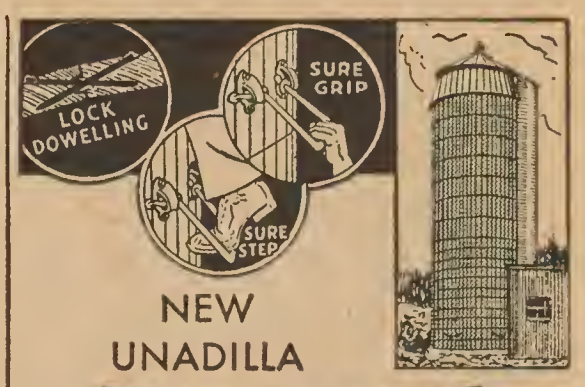
May 17-19 — State FFA Convention, Lowville Central School, Lowville, N. Y.

May 19 — Beef Producers' Day, University of Connecticut, Storrs.

May 20-22 — Annual meeting of New York State Milk Distributors, Inc., Sheraton Ten Eyck Hotel, Albany, N. Y.

May 21 — Guernsey Sale, Woodacres, N. J.

May 21—Annual Meeting of New York Dairy Boosters, Inc., Sheraton Ten Eyck Hotel, Albany, N. Y.



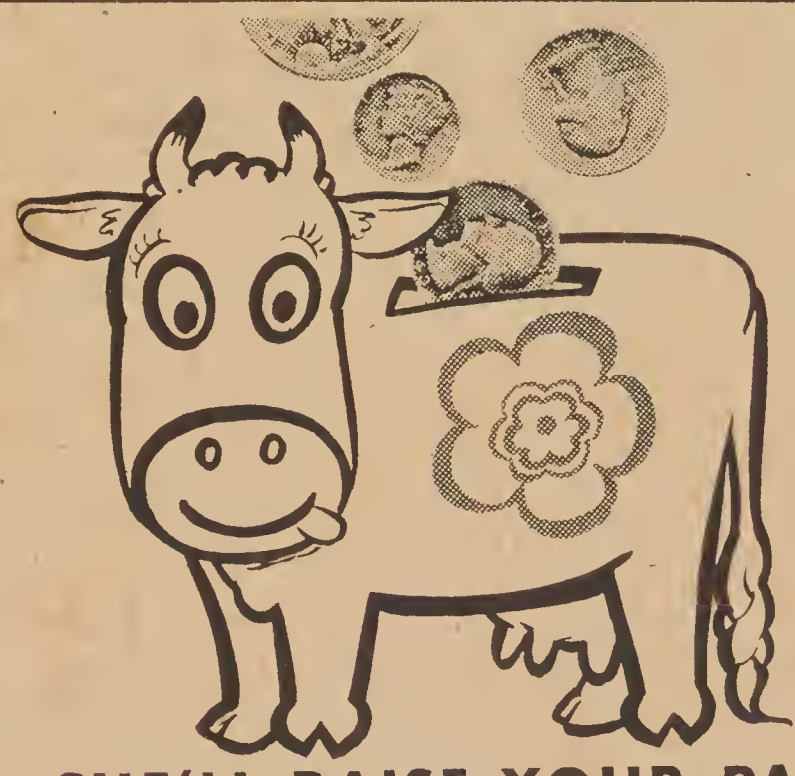
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Now, add extra years to the life of your silo—at little extra cost—by ordering it Factory Creosote Treated. In this scientific process, air is first removed from the wood cells . . . then the creosote is forced deep down into the wood under heavy pressure. Your factory-creosoted silo looks better, lasts longer, gives you better silage protection by far. And more than pays for itself by eliminating costly paint jobs forever. See your dealer, or write today for *Free* catalog.

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Study after study proves this fact:

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Get the facts from our Farm Service Representative—learn how easily you can "raise your pay with early cut hay" . . .

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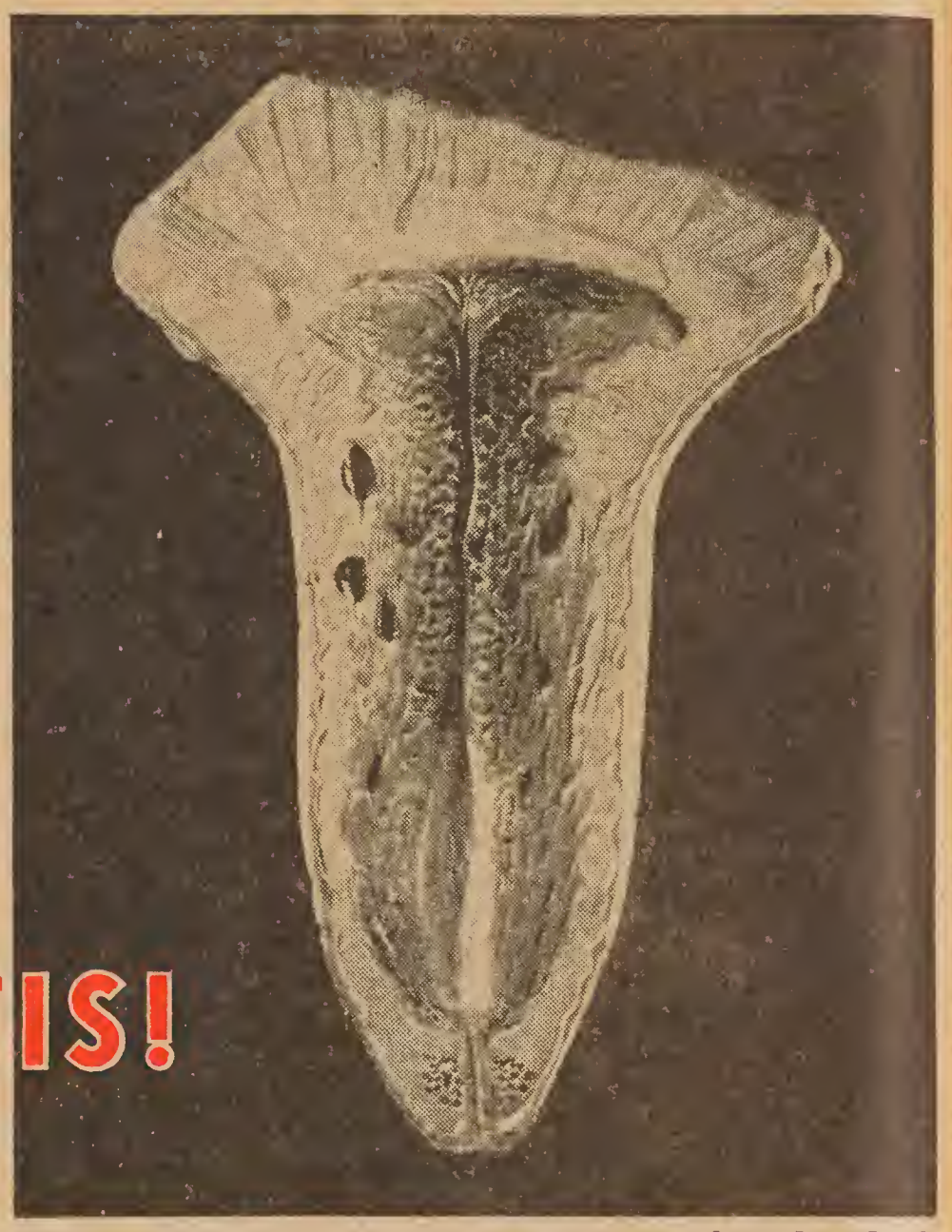
NEW YORK STATE ELECTRIC & GAS CORPORATION



SIGN OF BETTER FARMING...



Dr. R. S. Guthrie



Improper milking caused the dark area of callous growth in this cross-section of a cow's teat.

—Courtesy Babson Bros. Co.

by Gordon Conklin

You don't have

To live with MASTITIS!

AN EXPERT on mastitis is Dr. Richard S. Guthrie, supervising veterinarian of the New York State Mastitis Control Program at Cornell University. He has often said that today's dairymen don't have to resign themselves to living with mastitis and, to find out more about what he meant, I visited him recently at his office at the "Vet College." Here are some of my questions and Dr. Guthrie's replies:

Dr. Guthrie, we've been hearing about vaccination against mastitis lately. Should all cows be vaccinated?

A vaccine developed at the University of New Hampshire is designed to combat one type of mastitis organism, briefly referred to as **Hem. staph.** By the way, more than 242 different strains of this organism have been identified, one or more of which are always present in every dairy stable. Our information indicates that vaccination softens the impact of these organisms, but will not always prevent their activity in the udder, nor prevent infection from spreading.

Continuing work is being done at various places, including Cornell, to study effective vaccines designed to aid in mastitis control. I couldn't recommend vaccinating all cows, though, until research gives us a better idea of the best place this method can play in control programs.

What about antibiotics? Are they the answer?

Selective treatment with antibiotics is very important, especially in the elimination of **streptococcus agalactiae,** the worst offender of the long list of organisms that can cause mastitis.

Dairymen should remember that it's important to know what type of organism is present in the udder, because certain antibiotics do a better job on a specific type of bacteria. Technicians at the Mastitis Control Laboratories culture milk samples and identify the culprits so the antibiotic infusion gun can be loaded with birdshot or buckshot, as the case requires.

All too often, antibiotics have been used as a "crutch" when the real problem was poor management. This term includes primarily milking practices and milking equipment, but it also takes in stabling conditions and the way cows are handled.

Before we get into management, I'd like to know more about that critter you said caused the most trouble. Since I can't pronounce it, I'll just call it "Strep Ag." Tell me about his claim to fame.

Well, streptococcus agalatiae is a bacterium all by itself without having all those many different strains I mentioned in connection with **Hemolytic staph.** The "Strep Ag" organism, as you call it, is the most infectious of all mastitis organisms—but once eliminated it can be kept out of the herd unless reintroduced from a source outside. Here's one reason to keep a purchased cow separate from the rest of the herd until you've checked to see what bugs she's carrying.

Anyway—your "critter" creates what we call a low grade infection, one often not detected by the dairyman. Then, every time it does flare up and start raising Cain, another portion of udder tissue is destroyed and a fibrous area of scar tissue left in its place.

Fortunately, **streptococcus agalactiae** can be successfully "blitzed" by a veterinarian with antibiotics. For a few days after the big push, cows are especially susceptible to reinfection, and, since this bacterium can live on the bedding and platforms for as much as a week, great care should be used during that period to keep it from re-entering any udder.

I know a Delaware County (N.Y.) dairyman whose cows each jumped an average of 1,100 pounds of milk a year after putting the kibosh on this organism. The cost involved has been returned many times.

In New York, any veterinarian can arrange to have milk from each cow's quarter tested by personnel of the Mastitis Control Program. This test will identify all mastitis-producing organisms present, whether they are causing detectable symptoms or not. Veterinarians in other states can arrange similar tests via their own state laboratories.

On every farm where the team (local veterinarian, dairyman, and Mastitis Control Program personnel) has really gone after this organism, we've licked it. No dairyman has to live with it.

You mentioned management as being very important in mastitis control. I suppose one part of management would be that editors and vets should make themselves scarce at milking time?

Right! When that milker pump starts, a dairyman should devote 100 percent of his attention to milking. Having the job well organized is half the battle, and he just can't do a good job if there are distractions. It's also hard to do a good job unless the person milking really likes cows and enjoys milking them.

If every person milking would spend 30 seconds getting each cow ready to milk, he'd save 1-1½ minutes on the other end of her milking period. "Pressuring up" the cow by massaging the udder with a paper towel dipped in a warm sanitizer solution is important. Remember that stimulation of milk letdown only lasts 7 minutes—after that you have lost the cooperation of the cow due to lack of inside pressure so important in good milking practices. Six minutes should be an absolute maximum for milking a problem cow. Hand removal of the foremilk into a strip cup or plate also aids in stimulating milk flow, as well as in mastitis detection.

What about hand stripping?

This should be a thing of the past — it wastes time and gets the cow into bad habits. Before long, she's giving down half of her milk to the machine and the other half to the stripper. If a dairyman insists on hand stripping, he should do it rapidly immediately after removing the milker, and he should also disinfect his hands between cows to prevent the spread of infection. I would recommend machine stripping of the rear quarters, though.

One of the paradoxes of dairying is that doing some seemingly time-consuming jobs like milk stimulation actually speeds up the milking operation in the long run.

What other things are important in the milking operation?

Oh, there are lots of items to think about. As with all things, "It ain't as simple as it looks!" For instance, the milking machine should be in tip-top shape in terms of vacuum pumps, pulsator, vacuum lines, etc.

(Continued on Page 48)

Geigy *creators of chemicals for modern agriculture*

how to grow corn without weeds...

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One application of Atrazine or Simazine herbicide eliminates weed nuisance—controls broadleaf weeds and grasses right through to harvest.

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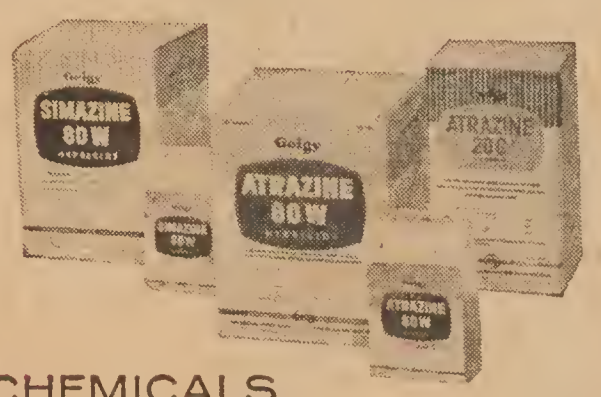


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PRIZES FOR THE APPLE



Mrs. Augusta Chapman



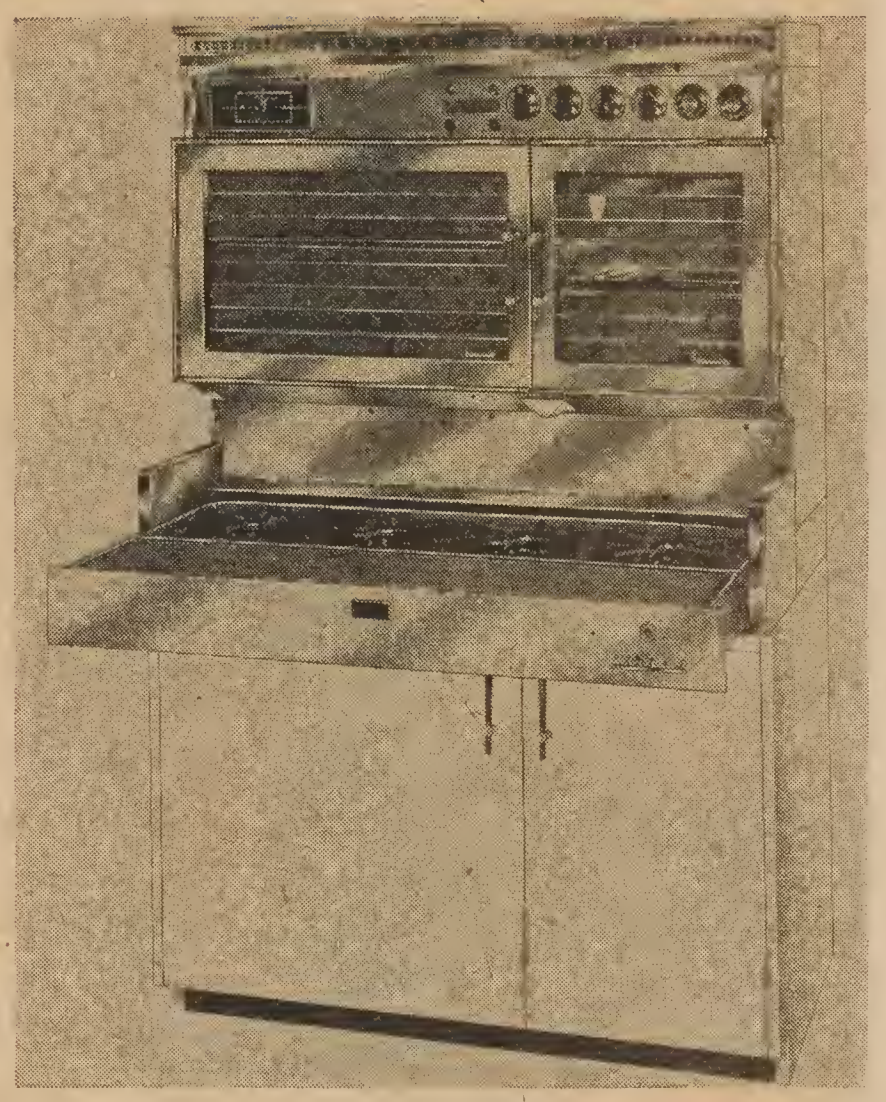
Mrs. Eleanor Vanderbeck

Co-directors of the Apple Pie Contest are American Agriculturist Home Editor Augusta Chapman and Mrs. Eleanor Vanderbeck, Rochester, N. Y., Chairman of the State Grange Service and Hospitality Committee.

←

From THE TAPPAN STOVE COMPANY
To one of the 4 high State winners: Gas OR Electric Fabulous 400 Range with Visual-Hite oven and broiler and hideaway cooking top.

→



THE APPLE PIE Contest which AMERICAN AGRICULTURIST and the New York State Grange are jointly sponsoring this year is marching along at a rapid pace! Starting last fall in the Subordinate Granges, from one end of the State to the other, Grange members have been baking hundreds of delicious, juicy apple pies to enter in their local contests. The Subordinate winners move on up to the seeond stage of the eompetition, the County or Pomona matches, and these contests are still going on.

The exciting elimax of the eontest will come next fall when State Grange meets at Syracuse, New York. Then, the 53 county champions will eompete for the title of State Champion Apple Pie Baker and for the prizes shown on these two pages, plus eash prizes.

It's interesting to note that these baking eontests were started back in 1933 by State Grange and AMERICAN AGRICULTURIST, and have been held every year sinee then except during World War II. Both men and women are eligible to participate—in fact, any Subordinate Grange member may take part, except professional bakers.

Eight AMERICAN AGRICULTURIST advertisers are cooperating in the contest and will award prizes to State winners. Four of these eompanies will also donate prizes for the Pomona eontests.

Here is how the State contest prizes will be distributed:

To the 4 top State winners: One of the four household equipment prizes shown on these pages to eaeh winner. They include the following:

A picnic set consisting of an 8-foot Redwood table with two matching benches and a charcoal grill with hood, electric spit and adjustable firepot from **Cooperative G.L.F. Exchange, Inc.**

Magic Chef Gold Star Award LP-Gas Range with elock-controlled oven and appliance outlet, Magitrol thermostatic top burner, and giant griddle, from **Magic Chef, Inc.**

Monarch Eye-Level "Modernique" Coppertone Oven Range and Cabinet Base with family-size double-deeker oven and super-speed surface units, from **Monarch Range Company.**

A Gas Fabulous 400 **or** Electrie Fabulous 400 Tappan Range with Visual-Hite oven and broiler and hideaway eooking tops, from **The Tappan Stove Company.**

To each of the 10 highest State winners: A set of all the grocery prizes shown on these pages, as follows:

From **Comstock Foods, Inc.:** 1 case (24 cans) Comstock Pie Sliced Apples; 1 ease (12 eans) Comstock Assorted Pie Fillings.

From **Cooperative G. L. F. Exchange:** 5-lb. saek of each of the following G.L.F. flours: Cake, Quality Pastry, Pancake Mix, Quality Patent, and Medium Rye Flour.

From **Dairymen's League Cooperative Assn., Inc.:** A 5-pound, naturally aged Dairylea Cheddar Cheese.

From **Penick & Ford, Ltd., Inc.:** A 24-oz. can Davis Baking Powder; a 12-oz. can eaeh of Cocomalt, Creamy White Swel, and Creamy Fudge Swel; Swel recipe folder and Quick-Mix Charts; 1 dozen 12-oz. bottles of Brer Rabbit Molasses and a copy of "Book of Molasses Magic"; and a ease of MY-T-Fine Lemon Pie Filling.

From **Western New York Apple Growers Assn., Inc.:** A bushel of apples (winner's preferred variety), an Apple Slicer-Corer, and a suitably-framed, colorful seroll bearing a tribute to apples.

Besides all of these grocery and equipment prizes, State winners will reeeive the following cash prizes:

$159.00 in entry prizes from New York State Grange. Each of the 53 county winners taking part in the finals will receive a $3.00 entry prize.

$107.00 from American Agriculturist to be distributed among the top 15 State winners, as follows:

1st prize	$25.00
2nd prize	20.00
3rd prize	15.00
4th prize	10.00
5th prize	8.00
6th prize	6.00
7th prize	4.00
8th prize	3.00
9th prize	3.00
10th prize	3.00
11th to 15th, $2. each	10.00

Up to $250.00 from Comstock Foods, Inc. This company will give a bonus prize of $25.00 to all of the top 10 State winners who use Comstock Pie Slieed Apples in their winning entries.

Prizes will also be awarded to the 53 Pomona contests by Comstock Foods, Ine., Cooperative G.L.F. Exchange, Peniek & Ford, Ltd., Inc., and Western New York Apple Growers Assn., Inc.



From MONARCH RANGE COMPANY

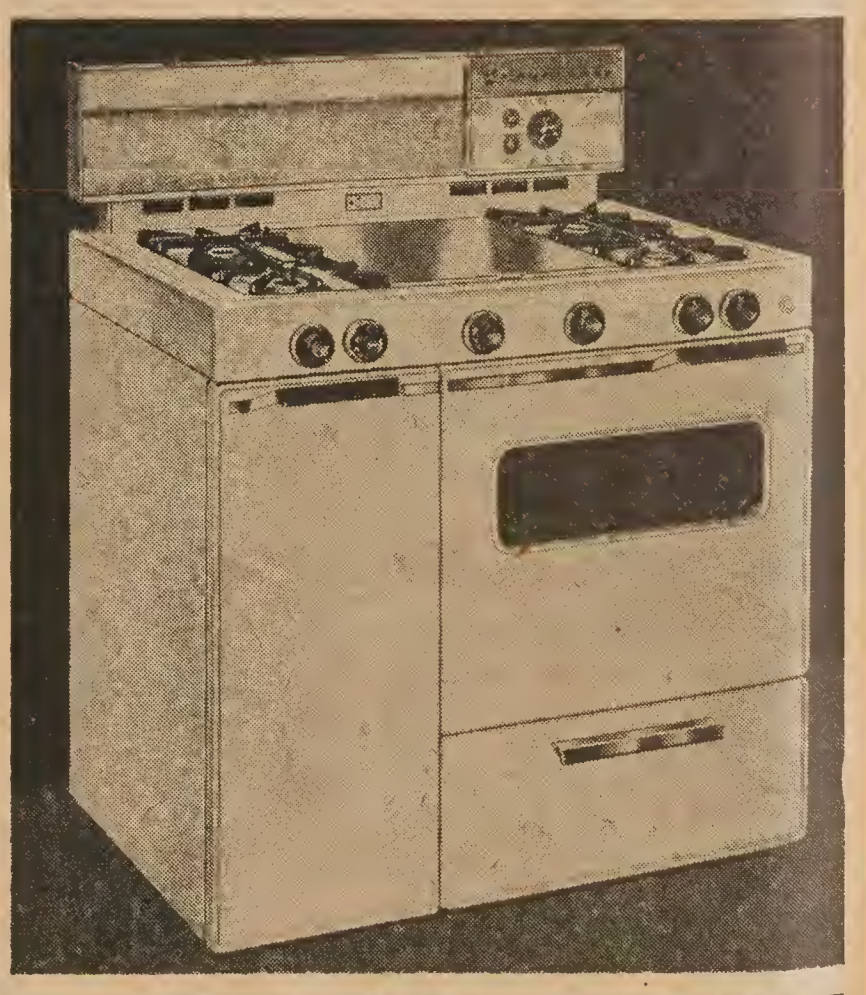
To one of the 4 high State winners: "Modernique" Electric Range and Cabinet Base with family-size double-decker oven and super-speed surface units.

←

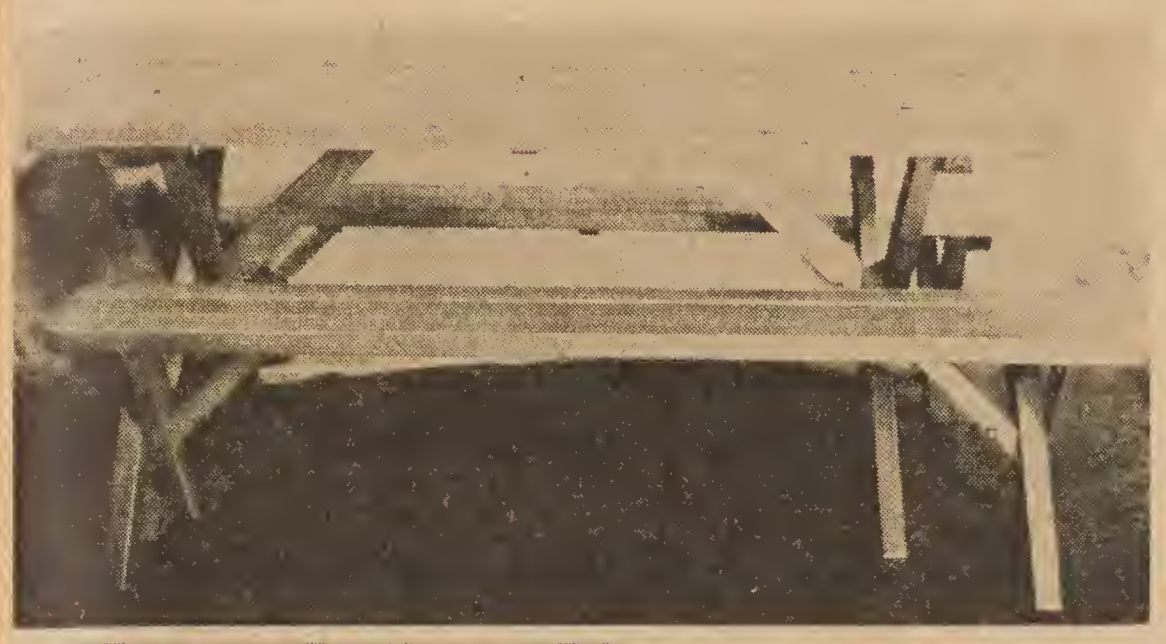
From MAGIC CHEF, INC.

To one of the 4 high State winners: Gold Star Award LP-Gas Range with clock-controlled oven and appliance outlet, Magitrol thermostatic top burner, and giant griddle.

→



PIE CONTEST!





From COMSTOCK FOODS, INC.

To each of the 10 high State winners: 1 case (24 cans) Comstock Pie Sliced Apples and 1 case (12 cans) Comstock Assorted Pie Fillings.

A bonus prize of $25 to all of the 10 high State winners who use Comstock Pie Sliced Apples in their winning entries.

To each of the 53 Pomona Contests: 12 cans Pie Sliced Apples and 3 cans each Blueberry, Cherry, Peach, and Mincemeat Pie Fillings.



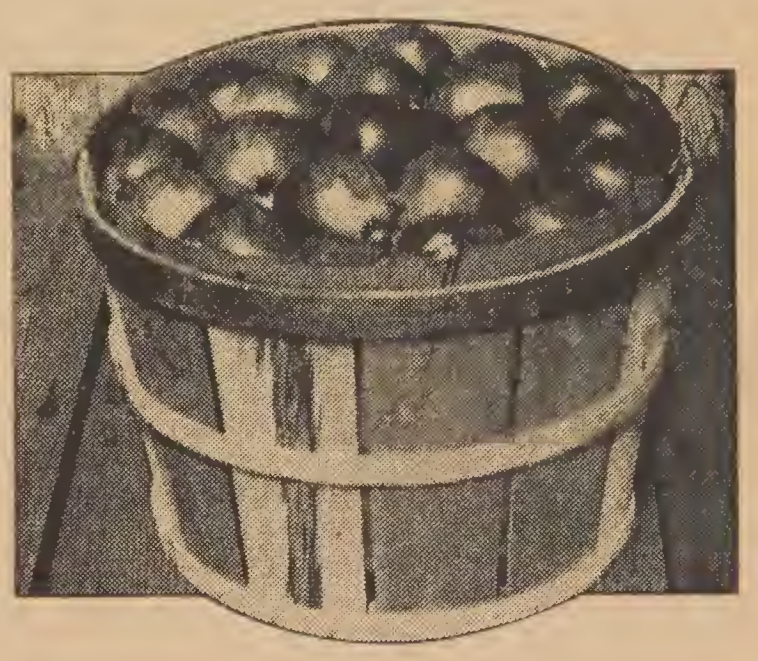
From COOPERATIVE G.L.F. EXCHANGE, INC.

To one of the 4 high State winners: An 8-foot Redwood picnic table with matching benches and a charcoal grill with electric spit.

To each of the 10 high State winners: 5-lb. sack of each of the following G.L.F. flours: Cake, Quality Pastry, Pancake Mix, Quality Patent, and Medium Rye.

To each of the 53 Pomona contests: 5-lb. sacks of G.L.F. Cake Flour and Pancake Mix.





From WESTERN N. Y. APPLE GROWERS ASSN., INC.

To each of the 10 high State winners: A bushel of apples (winner's preferred variety), an Apple Slicer-Corer, and a framed, colorful scroll bearing a tribute to apples.

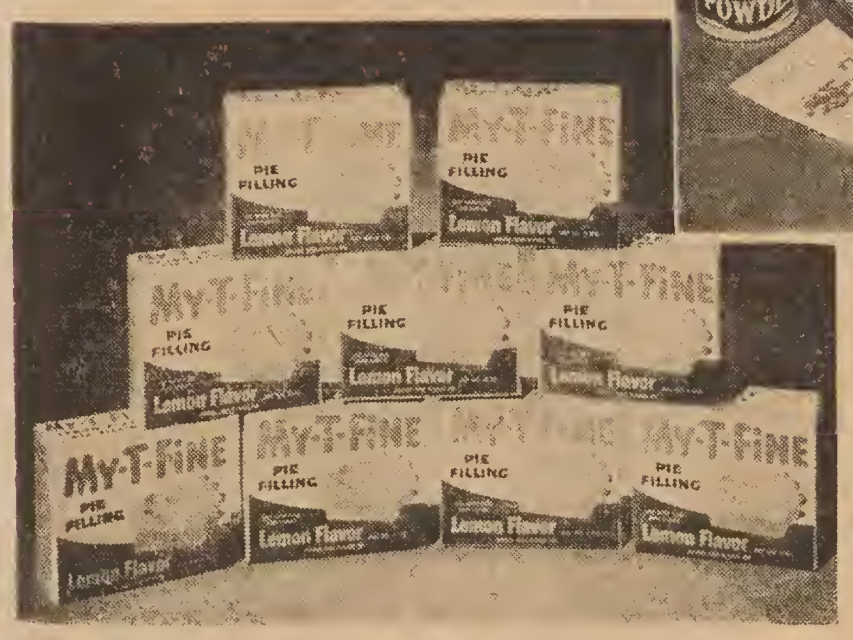
To each contestant entering a Pomona contest: A colorful scroll (suitable for framing) bearing a tribute to apples.



From DAIRYMEN'S LEAGUE COOP. ASSN. INC.

To each of the 10 high State winners: a 5-lb. naturally aged Dairylea Cheddar Cheese.





From PENICK & FORD, LTD. INC.

To each of the 10 high State winners: All of the grocery prizes in these three pictures.

To each of the 53 Pomona contestants: A 12-ounce bottle Brer Rabbit Molasses and copy of "Book of Molasses Magic."



NEW YORK STATE GRANGE CONTEST



DOING: Painting is one of the absorbing leisure-time activities pursued at the Ithaca, N. Y., Senior Citizens Center. The painter in the picture is Miss Anna Hunn, with Mr. and Mrs. Reginald Moore looking on.



SELLING: There's satisfaction, too, in exhibiting and selling some of your handwork. The picture shows a corner of the attractive Ithaca Senior Citizens Shop during a recent sale.

Fun In Later Years

By
AUGUSTA CHAPMAN
Home Editor

HOW to have fun and get the most from your later years was the theme of a program sponsored last spring by the Tompkins County Senior Citizens Council at Ithaca, N. Y. All interested persons were invited to four different meetings, at which expert hobbyists told about their own hobbies and answered questions from the audience.

In explaining the program, Mrs. Norman K. Stieglitz, the director of Senior Citizens Center, said that it was designed to inspire vocational interests and to make people realize they should have something interesting to do when retirement looms.

"This is the time of life when people should be able to do the things they've wanted to do all their lives," she said, "but too often retirement seems the end of the road. People should prepare themselves for an active life, and with our program we hope to challenge their interest."

A variety of after-retirement activities was discussed at the four meetings. At the first one, "study challenges" were explored. It was pointed out that if you are retired, you now have time to study any subject that interests you. It was suggested that you might enjoy learning a new language, or taking up nature study, and if you need help, said the speakers, you can probably get it in your community from adult education courses, library reference books, neighbors, and friends.

Collecting as a hobby was the theme of the second meeting. Four enthusiastic hobbyists told of their collections and said that collecting is one of the easiest hobbies to start, and the possibilities are limitless. Though your first thought may be of coins, stamps, animal figurines, or salt and pepper shakers, the Senior Citizens' discussions stressed that you can collect **just anything** that you find interesting or lovely and which you enjoy.

The third meeting was on the fun you can have **making** things. The four speakers this time were experts in weaving, woodworking, whittling, and working with glass, leather, and silver. One speaker whose hobby is weaving, said, "There is a creative urge in all of us, and crafts is one of the best ways to satisfy this urge. The world is full of things to work with creatively! The important thing is to have something that you enjoy doing alone or with friends."

Indoor and outdoor gardening, bridge, and painting were some of the activities discussed at the fourth and last meeting, whose theme was **doing** things. About painting, Mrs. Stieglitz said, "Painting can give a unique sense of achievement." She claimed that everyone can paint and create a mood with color and movement. All of the speakers agreed that satisfaction is gained from a hobby only if you are really serious about it.

An attractive gift shop, displaying members' handiwork, is connected with the Senior Citizens Center at Ithaca. I stopped in one day when they were having a sale, and found a fine assortment of gift items, suitable for every occasion. I was looking for something to go in a "sunshine basket" for a friend just home from the hospital, and I finally selected an apron from among dozens of pretty ones.

Some of the other items for sale were oil paintings and water colors; hooked and woven rugs; children's dresses; doll clothes and stuffed toys of all kinds; enameled copper jewelry and compacts; ceramic vases and ash trays; bridge and luncheon sets, and note cards with delicate tatted floral designs on the corners. Members of the Center may place five articles on display at a time. If they are not sold within a month, new items are entered in the gift shop, thus assuring visitors of new selections from one week to another. The members donate 25 per-

(Continued on Page 47)



WOODWORKING: At the Ithaca Senior Citizens Center, you're apt to find a male member in the woodworking corner. In the picture is Lambert Kenfield finishing up a rocking horse.



MAKING: Weaving is one of the most popular crafts taught at the Ithaca Senior Citizens Center. The teacher in the picture is Miss Marjorie Ross, with Mrs. John Wells at the loom.

COLLECTING: The possibilities of collecting are limitless, and it's an easy hobby to start. In the picture, Willis Elwood, a member of the Ithaca Senior Citizens, shows off his collection of engines to two young visitors.



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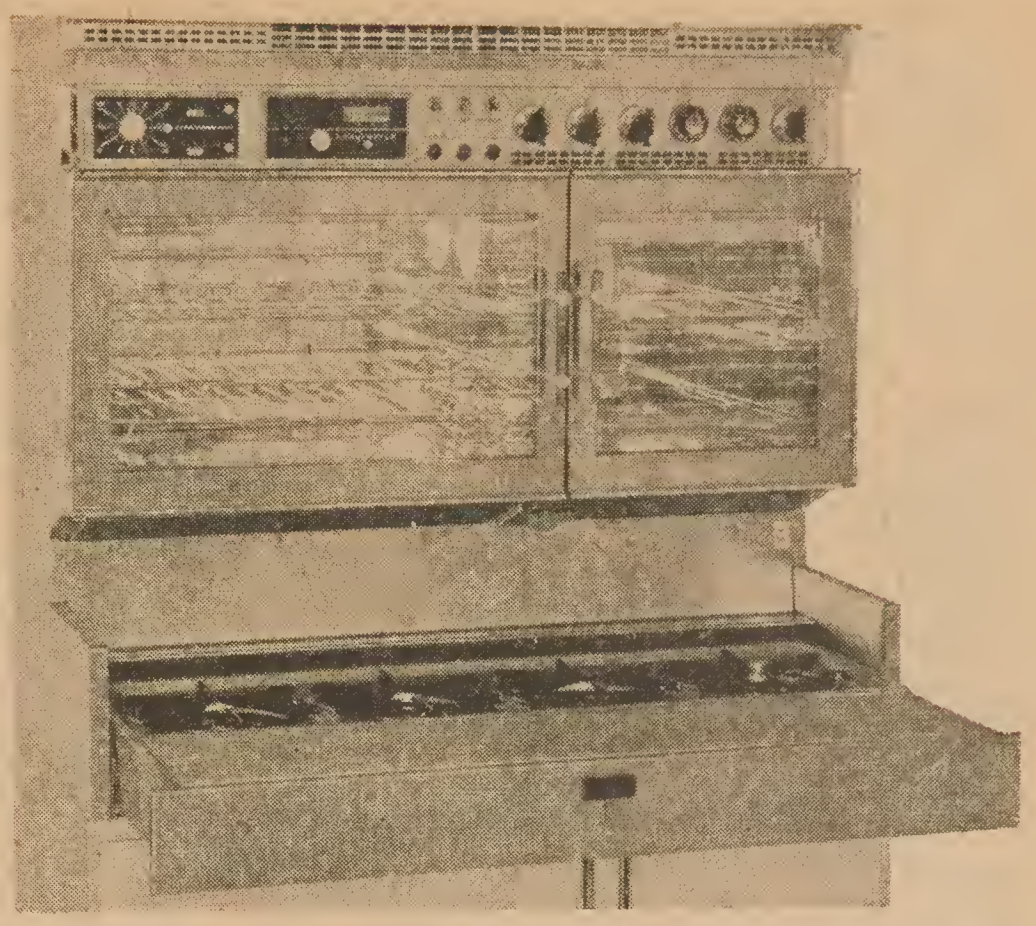
9347. String-tied sheath has just three main pattern parts. Lovely in a bright polka-dot, silk or cotton. Smart in linen, too. Printed Pattern in Teen Sizes, 10, 12, 14, 16. 35 cents.



4600. Step-in style with scooped and collared neckline, handy pockets. Smart in cotton, linen, shantung. Printed Pattern in Half Sizes 12½, 14½, 16½, 18½, 20½, 22½. 35 cents.

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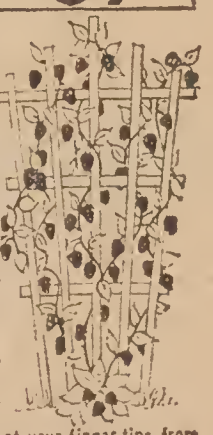
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Garden Talk

By NENETZIN R. WHITE

April Troubleshooting

LET'S ENJOY these April showers that bring the May flowers, and also put them to work. Now, as at no other time of the year, we can locate the wet or poorly drained spots on our grounds.

Do you have one area where nothing seems to do well? Perhaps the soil seems reasonably good, you have used peat moss, and still plants fail. Well, unless you are trying to grow sun-loving plants in deep shade. I'll bet this is a wet pocket! Poor drainage is responsible for a great many planting failures. Here in the Ithaca area, and through much of the Northeast, we have heavy, compact clay. This does not permit water to seek its natural down-hill course.

After your next good rain, locate the areas where water stands. Aren't these your poorest planting or lawn areas? Make a note of these wet spots, or drive stakes where they are. If you don't, your optimistic mind will forget how wet the areas are, and when it's dry enough to plant, you will happily go ahead with plantings that are doomed to failure. You needn't worry about every little damp spot, but for large areas, do some correcting before you plant.

Now, I'll stand on my two feet and say that no amount of peat moss, vermiculite, palite, or sand will control water pocketing in clay. Raising the grade will not really help much either. In my opinion, there are just three things to do — tile drain the area, use raised bed plantings, or use plants that will tolerate "wet feet."

Let's start with the easiest solution—plants that will tolerate a wet situation and poor drainage. For some odd reason, these plants are not usually very showy, but there are some that you can use. In the shrubs, you can use several Viburnums—lentago (Sweet Viburnum), dentatum (Arrow-wood), or Americanum (High-bush Cranberry); Ilex verticellata (Winterberry); all of the willow (Salix) family, or the red or yellow stemmed variety of Dogwood (Cornus stolonifera).

Benzoin with its very early bright yellow flowers, or Clethra (Summersweet), with its creamy white fall flowers are well adapted to soggy spots, too. The latter two are little known, excellent plants. Evergreens are a little more difficult. Arborvitae (provided it is in full sun), Hemlock, and White Pine will withstand poor drainage conditions for part of the year, but will not take a continued wet-feet situation.

A few good shade trees will usually stand the gaff. The willows, of course, do well, and perhaps the best of all "permanent" type trees, the Pin Oak, does well, **provided** the soil is deep. The traditional American Elm will do well, and so will the American Linden (Tilia Americana). I do not really consider planting these trees a solution, but they will often help to make a bad situation tolerable.

The second plan is raised bed plantings. These, if raised a foot and a half to three feet (depending on your location), will do quite a respectable job. Normally, you will need retaining walls of some kind. To me, the loveliest of these are cut-faced stone walls; my husband, Phil, prefers natural or field stone walls. Don't pass over this one lightly, for the material, natural field stone, is yours for the picking up, and almost anyone can construct one of these walls. Many other materials are suitable — cinder blocks, cement blocks, concrete, railroad ties, and redwood (which can be spectacularly beautiful), and many others.

These beds should then be filled with good topsoil loaded with lots of organic material. Remember that all freshly moved topsoil will need to settle, so if you do not have two or three good rains before you are ready to plant, get out your hose and really soak the bed several times to hasten this settling. Cornell has accomplished spectacular results with rhododendrons and azaleas, using this "raised bed" process.

Best Solution

The solution for wet areas which I mentioned first is usually the best —tile drainage. I left this until the last because it is expensive (even if you have a strong back) and messy. It is important to have the proper pitch and enough branches to your tile, so call in an expert to help you lay this out, and avoid disappointments. Your State College of Agriculture will have excellent bulletins on drainage. I suggest you contact them for help on the above subject.

Do your plants have any scale? Do you know what it is? Well, scale is whitish, grey, or brown spots on the branches of a plant. These may look like dead spots to you, but in the spring they shed their armor and start to move all over the plant. They will kill the branches, and eventually the plant. Scale can occur on practically any plant, but very frequently attacks lilacs, euonymus, magnolias, mugho pine, Scotch pine and junipers.

There are two controls—dormant sprays (used before the leaves unfold) and summer sprays (used after the leaves are out). Dormant sprays are stronger and usually more effective, but they will burn new leaves. This spray combines a miscible oil with Malathion. Read directions carefully, and spray on a warm day. The summer spray uses less of the miscible oil and more Malathion; again warmth makes this more effective. It will take two or three applications to be sure of a kill, and a sharp eye to watch for recurrence of the scale.

(Continued on Opposite Page)



INVITATION

By Eleanor A. Chaffee

If you'll wait an April minute
This brown field with nothing in it
Suddenly, and over night,
Will be laced with curving flight
Of homing birds, and in the sun
Blossoms like pink foam will run
Along the branches, and spill over,
Lacy on the pointed clover.

If you'll wait an April hour
You will see in every flower
Velvet bees, and hear their humming
Like an orchestra's low strumming.
Only those who watch can know
How the tides of April flow
Over earth, and leave behind
Treasures early hunters find.

Fashion Takes Shape . . .

THIS SPRING, the look that's IN is young, fresh, feminine—a look keyed by the breezy, new shapes endorsed by the top fashion groups.

Skirts are first to swing to this new, lighthearted tune. Pleats, flares, and gores all set a lively pace. The young shape is further defined by the length of the new skirts. Definitely short — the barely-below-the-knee length seems perfect. Make slim skirts slightly longer, however.

Topping off the skirt news is the small waist, emphasized by a wide belt, and sometimes by princess seaming or several narrow string ties of leather or fabric.

The sleeveless look sweeps the scene, and coverage is provided by a separate jacket that's brief and semi-fitted. The new suits and costumes have "dress" necklines, scooped or curved away to reveal a pretty blouse beneath. Blouses are back in the spotlight again, both tuck-ins and relaxed overblouses. This spring, blouse plus skirt plus belt equals the fashion value of a dress.

The all-important princess shape appears in sportswear, too—flaring princess tunics top off slickly fitted pants. Waist-high princess overblouses team with shorts and pedal pushers.

The Empire look with a subtle rise bosom-ward is gaining more importance. Of course, your favorite classic styles are still in the fashion picture with a more shapely, feminine emphasis. Look for dressed-up shirtwaists, low waisted sheaths, and dresses to belt or not, as you will.

When fashion shapes are as well defined as they are this Spring, what they're made of becomes a crucial matter. Wools are "thinner," yet have an easy-to-tailor texture. The new cottons, linens, and knits hold a firm line, yet are light in weight.

Spring colors flash the news of brightened pastels — garden-fresh tones of peony pink, zinnia orange, rose-red. White flecks add a softness to tweed, and white by itself is a high-fashion color. Look for the all-white suit, icy white cotton in sportswear, white crepe or sheer for dinner and dance dresses.

An additional note of good news is the fact that many of the new fashions are ultra-simple to make so if you sew, you can have much, much more for so much less.

GARDEN TALK

(Continued from Opposite Page)

As Silver Maples (Acer dasycarpum) and a few other plants unfold their leaves, they sometimes have warty red, yellow, or brown spots on them. These are caused by mites (or midges if you prefer), and can only be controlled by a dormant spray. When you see this condition, it is too late to do anything, but note it on your next year's calendar for attention in February or March. Use a dormant spray at least two times, following directions carefully.

Some diseases winter over in the soil. As you are doing your spring cleanup and removing mulches, you can eliminate a lot of next summer's headaches. This is particularly true of rose beds or any areas where you have plants that get black spot, mildew, or fungus infections. Soak the soil and the dormant branches thoroughly with a good fungicide (I like to combine a good insecticide with this, for it only costs a few pennies more and may do some good). Next summer's problems may not be completely eliminated, but should be considerably lessened.

Spraying need not be tedious. Don't be trapped by the old hand pump sprayers. If you can reach your areas with a hose, use a hose gun, otherwise a trombone sprayer where the spray is sucked up from a pail. Do read instructions and follow them carefully.

Healthy plants are less likely to fall prey to insects and diseases. This means careful pruning of dead branches, watering during drought, and frequently some good feeding. I like to use a complete fertilizer and bone meal. The complete fertilizer such as 5-10-5, 6-12-6, or 10-20-10 will fill most of your plants' needs. But for flowering plants, many of our soils are lacking in phosphorus, and I find that the bone meal will correct this deficiency. Bone meal is long lasting, organic, and in normal quantities will not burn foliage or roots. Most other fertilizers will burn foliage or kill roots upon contact. Never use chemical fertilizers or fresh manures in planting pockets. Spread these lightly in circles around your plants, and cultivate in slightly if you wish.

Good Gardening!

LATER YEARS

(Continued from Page 44)

cent of the proceeds from the gift shop to help maintain their Center.

Adult education classes in crafts and other retirement activities are part of the regular program of the Center, and the items displayed in the shop prove how successful members are in pursuing their hobbies.

One of the things stressed by the speakers at the four meetings, however, was that you should choose your hobby while still gainfully employed and not wait until after you retire. Of course, some people have built-in hobbies, such as being a busy grandmother or working for church or Grange. But whatever your interests, if you are nearing the age for retiring, look around you and see what your community offers its senior citizens. Perhaps there is no organized effort in your area to help older people enjoy their later years, and you might help start a group, such as the one in Ithaca, N. Y., where retired folks can find companionship as they learn, work, and play together.

FAMILY INSTITUTE AT CORNELL

"THE American Family" will be the subject of the second annual Institute sponsored by the New York State College of Home Economics at Cornell University on Thursday, April 12, 1962, from 9:30 a.m. to 3:30 p.m., in the Alice Statler Auditorium on the campus. The Institute takes the place of the program formerly sponsored by the College during Agricultural Progress Days.

An impressive list of speakers includes Mrs. Katherine Oettinger, chief of the Children's Bureau, U. S. Dept. of Health, Education, and Welfare; Miss Frances Perkins, Secretary of Labor under Presidents Roosevelt and Truman; the Rev. William Genne, executive director of the Family Life Dept., National Council of Churches of Christ; Dr. Walter R. Stokes of Washington, D. C., who has 33 years of practice as a clinical psychiatrist plus wide experience with community and organization problems in family life and sex education; and the Honorable Caroline K. Simon, New York Secretary of State.

Subjects for discussion are: **The Impact of the Employment of Women** . . . on Family and Community, . . on Industry and Nation; **The Family in a Time of Social Change**; and **Citizen Participation in Government.**

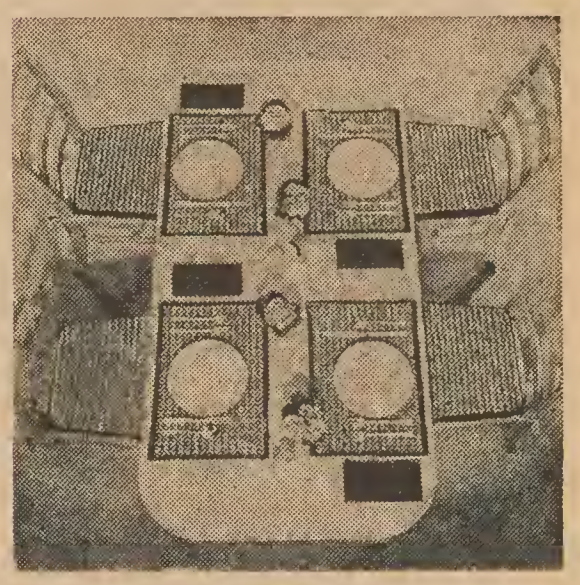
We hope it will be possible for many of you to come to Ithaca on April 12 and participate in this worthwhile program

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Mrs. Augusta Chapman, Home Editor
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Box 367, Ithaca, N. Y.

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Dr. Naylor's UDDER BALM

Don't Live With Mastitis

(Continued from Page 40)

In spite of what a few farmers—and some salesmen—will tell you, never try to handle more than 2 milker units per man in a "regular" milking system where milk is carried. With a dumping station or an around-the-barn pipeline, 3 units per man are the absolute maximum. One man trying to ramrod 4 or 5 units in a stall barn usually means that the teat cups end up yanking away on empty udders.

Just suck real hard for a minute on the back of your hand and you'll see a blood spot—indicative of the irritation caused by overmilking or improper vacuum. Mastitis often follows irritation, for stress of any kind gives the infection a chance to get rolling. Stress also includes such things as drafts blowing on cows, cold platforms with little bedding, and rough handling.

The order of milking is important. It always breaks my heart to see a farmer milk a few old cows with mastitis scar tissue in their udders; then go to a string of first calf heifers. Infection can easily spread on the teat cups, unless they are carefully disinfected between cows with an iodine, chlorine, or other satisfactory sanitizing solution.

Inflations can also spread infection unless they're cleaned up thoroughly once a week with lye. Regardless of how much they're scrubbed each day, fat collects on them, and bacteria manage to live in the fat even through normal washings, especially if the inner surface is roughened or eroded. So—give 'em the boiling lye treatment with 2 tablespoons of lye per gallon of water. Boil for 15 minutes in an agateware container, and let them stand 8 hours in the solution. Then wash, rinse, and store them in a clean, cool, dark place. This requires two sets of inflations, used every other week. But remember, they'll milk better and last longer than if each set were used every day until it was worn out.

Do you recommend stall barns or pen stables as far as mastitis control is concerned?

There is no inherent difference that can be generalized. Too many stall barns give a cow inadequate room and therefore can lead to stepped-on teats. If a loose housing setup is very carefully planned, it can give a minimum of udder injuries, but a **well-built** stanchion barn can do the same.

I would recommend, regardless of the type of barn, that steps instead of ramps be used in milking parlors, because cows will slip less on steps. Cows should go out of a milking parlor to a paved area so they don't have to plow through a mudhole, or any portion of the bedded area of a pen stable. In fact, they shouldn't slop through a mudhole at any time because that coating of mud and manure on the teats is swarming with bacteria just aching to start a good dose of mastitis.

Wherever cows are stabled, they should have plenty of clean dry bedding. Mastitis organisms are less able to survive on it than on dirty damp platforms. Bedding prevents teat injury and the stress of cold udders; it reduces irritation of teat ends by the natural acids in urine.

Cow trainers help keep the platforms clean and dry, and generally I think they're desirable. Rubber mats are good insulation and, even though they're expensive, the reports are favorable every time I ask "a man who owns one."

Dr. Guthrie, we already talked a little about milking machines. Somehow, though, I ended up feeling like I had seen a girl in a bikini—as though the subject weren't adequately covered.

Well, the subject of milking machine maintenance requires a lot of cloth to cover. Dairymen use it twice a day—every day—and it gets gray hairs so gradually he doesn't even realize it's getting old, unless it actually quits on him.

Generally we find most of the problems in three areas; vacuum level erratic, too high or too low; pulsator erratic in speed, set too fast, set too slow, or worn so leaking air prevents complete inflation collapse; inflations dirty or cracked so infection is spread, or just mechanically unsound so they do a poor job of milking.

What about heavy grain feeding in connection with mastitis?

Heavy grain feeding will not **cause** a mastitis flareup, but high levels of digestible protein in large amounts may make an existing condition worse. We don't know exactly what the connection is between large amounts of protein in the ration and mastitis, but the relationship seems to exist. I've noticed that many dairymen drop affected cattle back on the amount of grain fed during a flareup of mastitis—but remember that grain isn't the original **cause** of the problem.

By the way, there's no evidence I know of that any feed additive will inhibit mastitis.

Is it possible for dairy animals to inherit mastitis?

There is no reason to believe that the disease can be directly inherited. However, the tendency toward certain characteristics like a weak udder attachment or teats with weak sphincters, and udders physically more susceptible to injury, are inheritable.

No, inheritance can't be saddled with much of the blame for mastitis. Most of it is a result of management — good or bad. And the best hope for its control is unending effort by dairymen to do a better job of milking and caring for their cows. There's no easy way to prevent mastitis—but no dairyman has to grit his teeth and just get along with it.





Black rot can turn a field of heads into a field of stumps in a very short time. No fungicide can stop it when it gets rolling.

Attention, Cabbage Growers!

By Arden Sherf*

BLACK rot, bacterial disease of cabbage and cauliflower, flared up in numerous New York cabbage fields last year. Old-timers remember it as the blight that years ago ruined fields during warm humid weather—in recent years it has been hard to find, but this has all changed.

Symptoms are easy to spot as yellow or brown areas about the size of a nickel at the outer margins of the leaves. The bacteria enter the leaves at these spots, and then get into the veins and scatter throughout the plant. Soft rot bacteria generally follow, to cause a soft, smelly rot of the head; eventually, the heads rot and leave only stumps. The disease is often worse in low spots or along windbreaks, and spreads rapidly during warm rainy weather. It seldom appears before midsummer.

The disease organisms may come to the farm in seed, in transplants, or in rain blowing from other diseased fields nearby. Once in a field, however, spread is easy and rapid by cultivators or blowing rain. All control must be pointed toward preventing its start in a field because sprays are not effective once the disease gets rolling.

If your cabbage had this disease in 1961 you may be in trouble unless you follow these rules carefully in 1962:

1. **Use only seed that has been hot water treated by you or your seedsman (122°F for 25 minutes).**
2. **Grow your own transplants in ground free of cabbage or cauliflower crops for the last two years, and not located near these crops in 1961.**
3. **Choose fields with good air and water drainage for growing your crop.**
4. **Plant where cabbage-type crops have not been grown for at least the past two years.**

For further information about black rot, consult your Extension plant pathologist at your state agricultural college. See table below for recommended fungicides to use in the coming crop season.

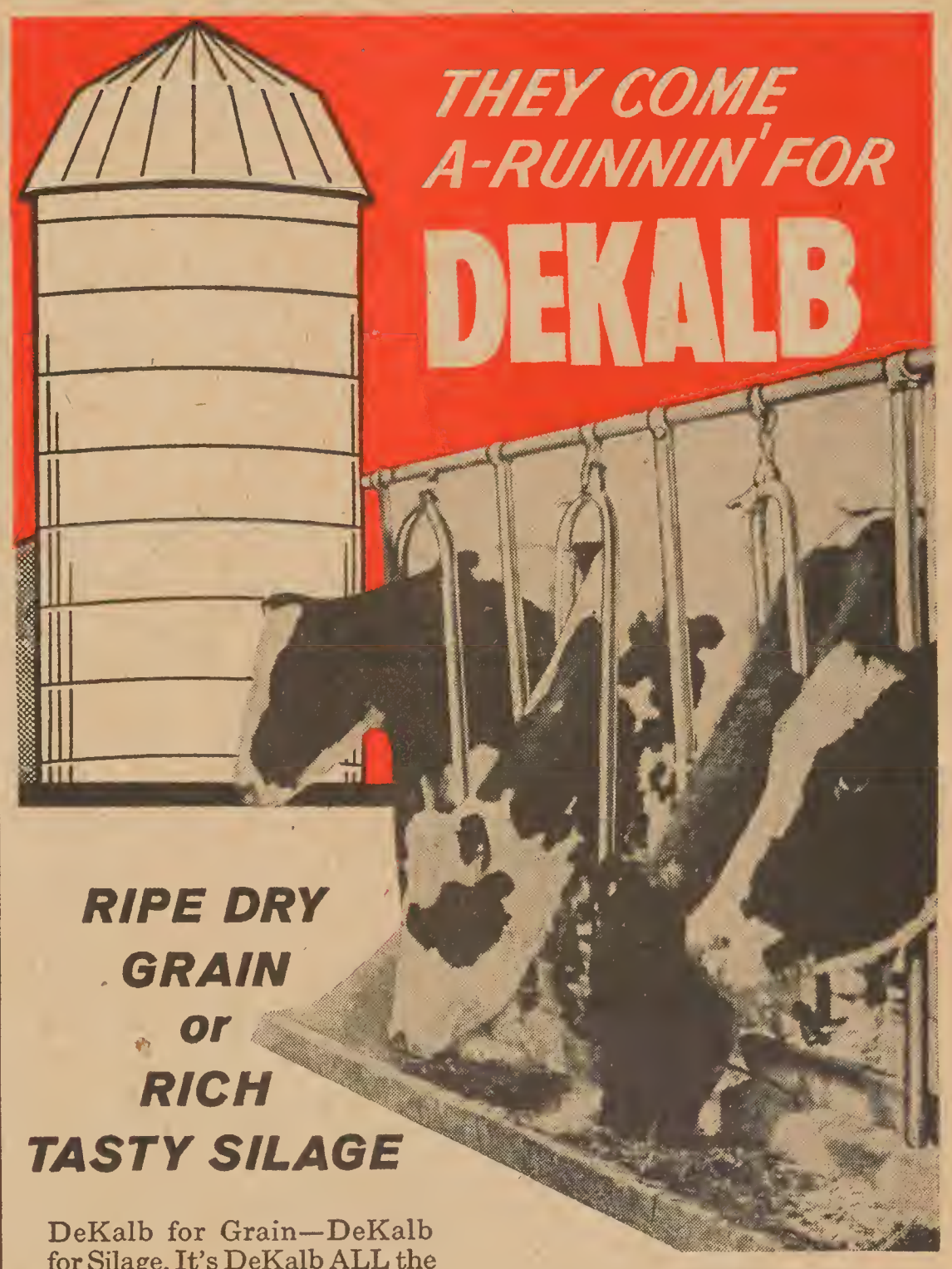
*Plant Pathologist, Cornell University

Vegetable Fungicides for 1962*

FUNGICIDE	FORMULATION**	RECOMMENDED ON	DISEASES CONTROLLED
Maneb	80% WP	Potatoes, onions, tomatoes, cabbage, cauliflower, cucumbers, and lettuce	Onion—blast, mildew and purple blotch Potato—early and late blight Tomato—early blight, anthracnose Cabbage—black leafspot and downy mildew Cauliflower—same as cabbage Cucumbers—scab, leafspot, anthracnose Lettuce—anthracnose and mildew
Zineb	75% WP 5-7% D	Potatoes, tomatoes, onions, cabbage, cauliflower, cucumbers, and lettuce	As above except not as good as maneb on tomatoes.
Captan	50% WP 5-10% D	Cucumbers Melons	Cucumbers and melons—leaf spot, anthracnose and scab
Nabam with Zinc Sulfate	22% L.	Potatoes, cabbage, onions, beets and lettuce	Potatoes—early and late blight Cabbage—black leafspot and downy mildew Onions—blast, mildew and purple blotch Beets—Cercospora leafspot Lettuce—downy mildew
Karathane	22⅓% WP 1% D	Cucumber, melons, squash	Only powdery mildew
Fixed Copper	23-53% Soluble	Cucumber, melons, tomatoes, potatoes and beets	Cucumbers and melons—only for downy mildew and angular leafspot Tomatoes—only for bacterial spot and late blight Potatoes—only for late blight Beets—Cercospora leafspot
Dyrene	50% WP	Tomatoes, onions and celery	Tomatoes—early blight and anthracnose Onions—blast, mildew and purple blotch Celery—early and late blight
Terraclor	75% WP	Cabbage, cauliflower and broccoli	In transplant water for club root

*For seed treatments to prevent seed rot, use Thiram or Captan on all vegetable seeds except peas; use Spergon on pea seed.

**WP=Wettable Powder, D=Dust, L=Liquid



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REAL ESTATE

E. HERRICK, MARGARETVILLE, New York. Farms, campsites, acreage, retirement homes —terms, 5 acre mountain retreats on road—$25 monthly for 20 months. 130 miles from New York City, Delaware County. Free list.

RANCH—FINGER LAKES area near Cornell University. 214 acres productive soil, excellent water, fish pond, 2 sets buildings, complete line of equipment. Ranch in operation. Herd of registered polled Herefords, excellent bloodlines. Unusual terms. J. D. Gallagher Co., Ithaca, N. Y. AR-2-3636.

HOMESITES. Located 4 miles from downtown DeLand, on State Road. For particulars, write P. O. Box 1314, DeLand, Florida.

WANTED FEW GOOD acres with stream, within 100 miles. Michael Juran, 1286 Arlington Ave., Elmont, Long Island.

FOR SALE: Authentic Colonial farm house, 10 rooms, 7 fireplaces, 2 Dutch ovens, 2 baths. Further details write Rino Delmolino, Box 13, West Stockbridge, Mass.

FOODS & FRUITS

SHELLED PECANS, Walnuts, Brazils, Almonds, Cashews, Filberts $1.25 Pound. Peerless, 538AA Centralpark, Chicago 24.

SIGNS

NO HUNTING SIGNS any material, lowest prices. Free sample—catalog: Signs, 54 Hamilton; Auburn, New York, Dept. G.

DURABLE PLASTIC Posted Land Signs. Free samples. Minuteman, Stanfordville, New York.

NO TRESPASSING SIGNS. Free samples, prices. Cassel 65 Cottage, Middletown, N. Y.

(Continued on Opposite Page)

(Continued from Opposite Page)

FARMS FOR SALE

FOR SALE--Modern operating dairy farm. 120 tie-ups. 1100 gal. bulk tank. Feed enough for 150 head. Excellent milk market. Next to Holyoke, Mass. Inquire: Irving Bercowetz, Bloomfield, Conn. or call Hartford CH 2-5521.

190 ACRE MAINE dairy farm. 150 acres cleared. Two family house, 12 rooms, with two complete bathrooms, new forced hot water heating system. New 36' x 167' tieup, 45' x 45' calfbarn, 14' x 40' steel silo, 26' x 50' equipment shed. Complete modern farm machinery. 50 cows, 23 two-year olds, 22 yearlings and calves, all Holsteins; CVed, Bangs and TB tested. Herd average 12,000 lb. DHIA on a Grade A local market, average price $5.25 per cwt. Gross income, $35,000-$40,000 annually. Price $80,000. W. L. Philbrick, Broker, 61 Water Street, Skowhegan, Maine.

EQUIPPED DAIRY; on River. A-1 bldgs.; money-maker — $15,000 income reported last yr.. 485 acres; on State hway, 2 mi. to town, 15 mins. to city; 8-Rm & 2 bath dwelling, furnace, masonry 4-car garage, grade "A" barn 36x66 with cow stable in basement, 48 stanchions, automatic drinking cups, milk rm., 100-ton silo, etc.; owner retiring and for quick sale includes 30 cows, 18 heifers, Guernseys, 2 tractors, attachments, 3 milking machines, tools & some furniture; $50,000. Strout Realty, Contoocook, N. H. Phone: 603-746-3614. Ask also for free property lists.

118 ACRE FARM $4500. 5 room home. 20 stanchion barn.—128 cows, new barn, 2 homes, swimming pool. Complete $100,000. will sell bare. Free lists, farms, homes half hour to Albany, Schenectady, Amsterdam, Gloversville. Mort Wimple, Realtor, Sloansville, N. Y.

$5,200 GETS 110 ACRES! Super New York farm bargain! Buildings alone carry over $8,500 insurance! 30 tillable acres, 20-acre meadow, creek, springs, barb wire, 70 acres woods. Spacious 8-room 4-bedroom home has new roof and siding but needs decorating inside, bath, basement. Barn, silo, poultry house. On good road, 5 miles town. Successful owner ready for larger farm; take it all for $5,200, less than half down. Big free illustrated spring catalog, bargains coast to coast! United Farm Agency, 501-AA Fifth Ave., New York 17. YUkon 6-1547.

FOR SALE. 300 ACRES excellent level land, fine buildings. 80 head cattle, up to date equipment. A money maker. $85,000 with ⅓ down. Sadlon Real Estate. James Vickerson Salesman. East Springfield, N. Y. PH. Cherry Valley AN 4-3756.

CHAUTAUQUA COUNTY. 400 acre Dairy Farm. 130 head mostly registered Holsteins. 72 milkers. Late modern farm equipment. 1500 tree sugar bush. Two good homes. Good barn 80 x 40. Other buildings. Barn cleaners. Two 16 x 50 silos. 475 gal. milk tank. Buffalo milk market. Owner retiring. Price $115,000. Write or phone L. S. Crocker Realty, Inc., Fredonia, N. Y.

GENTLEMEN'S FARM. Approximately 700 acres, over 50% tillable. New brick ranch home with all the extras—2 fireplaces, built-in kitchen, etc. Excellent barn ties 100 head. Completely equipped, and stocked with registered Holsteins. Tenant house. Petteys Agency, Granville, N. Y. Phone 868.

325 ACRE FINE dairy farm. 373-8834 Amenia, New York.

239 A. DAIRY FARM—an excellent village-edge productive, well equipped farm with modern stable (30 ties, 4 pens), adjoining young cattle barn (11 ties, 2 pens), bulk tank, barn cleaner, nearly new silo, and an exceptionally good herd of 54 Reg. Ayrshires. This is a buy at $40,000. Tom Whittaker, Realtor and Farm Consultant, Brandon, Vt., Phone 224.

FOR SALE 300 ACRE farm, stock, tools, $38,000.00. 95 acres tillable, pen stabling, fan hay drier, 3 stall milk parlor. 1 mile to school. 2 tractors, all other tools needed. 39 Holsteins. $24,362.00 for milk, $1,217.46 for stock sold in 1961. Now have 46 cows, 39 heifers. Two tenant houses, drilled well, natural pond behind house. 6,000 hen set up. Lee A. Kinsman, Hartland, Vermont.

BIG INCOME FARM, 85 registered Holsteins, $68,000. Terms. Others, or for Beef. Homes, Taverns, Motels. Wants? Hendrickson Bros., Cobleskill "Eastern" N. Y.

PHOTOGRAPHIC SERVICE

8MM 35MM KODACHROME processed $1.15. Kodacolor 8 exposures $2.25, 12 exposures $3.25. Complete details write Gregg Color Film Service, P.O. Box 52, Herkimer, N. Y.

CEDAR POSTS

CEDAR POSTS, ALL SIZES. Pressure treated or cedar poles for barns and sheds. Rustic fencing. M. D. Snell & Son, Marcellus, New York. OR-9-3121. Closed Sunday.

STRAWBERRIES

STRAWBERRY PLANTS: Certified, fresh dug. Catskill, Empire, Sparkle, Robinson, Fairfax, Premier, Pocohontas, Midway $3.25 per hundred postpaid. Everbearing Superfection $4.75 per hundred postpaid. Write for quantity prices. Braman Bros., Penfield, New York.

CERTIFIED STRAWBERRY Plants: Armore, Robinson, Catskill, Premier, Dunlap—$3.25 — 100; Superfection Everbearing $4.25 — 100. Raspberries $8.50—100, postpaid. Perkins Berry Farm, R. D. 1, Box 230, Hudson Falls, N. Y.

EXCELLENT EMPIRE, Sparkle, Pocohontas, strawberry plants. Inspected—circular. Wright Farm, Plympton, Mass.

STRAWBERRY PLANTS from Virus Free Stock. Earlidawn, Howard 17, Sparkle, Empire, Catskill, Robinson. 25-1.50; 50-2.25; 100-3.50; 200-6.50. Postpaid. Stan's Berry Farm, Southampton, Mass.

THOMPSON'S VIGOROUS Strawberry Plants. Vermont grown from virus free stock. Catskill, Sparkle and Howard 17 (Premier) 50-$2.00; 100-$3.50; 300-$8.50; 500-$12.00; 1,000-$22.00, postpaid. Trimmed ready to set from healthy long rooted plants. Glenn Thompson, Johnson, Vermont.

CERTIFIED STRAWBERRY plants, Premier Robinson, Sparkle, Catskill, Pocahontas. Big Joe. 100—$2.50; 1000—$18.00 Postpaid. Carl Martin, Brown Hill Rd., Conneaut Lake, Pa.

GARDEN SUPPLIES

PROTECT YOUR BERRY Crops . . . Vegetables, Cheesecloth 100 yards by 39", convenient 10-yard lengths. $7.50 prepaid. 50% less mill price. Joseph Hein, 120F Eton Road, Thornwood, N. Y.

PLANTS

CERTIFIED TOMATO, pepper, cabbage, onions, eggplants, broccoli, lettuce, cauliflower, beets, collards and sweet potato plants. Field grown, healthy, vigorous, full bearing plants. Write for free catalogue-price list. Satisfaction guaranteed. Evans Plant Company, Dept. 5, Ty Ty, Georgia.

STRAWBERRY—RED, BLACK, Purple raspberry and blackberry plants. Guaranteed to grow. Eureka Plant Farm, Hastings, N. Y.

STRAWBERRY, RASPBERRY, Blueberry, Blackberry. Latest and best including Frontenac, Midway Cyclone, Ozark Beauty, Everbearing. Write for free catalog describing 70 small fruit varieties. Walter K. Morss & Son, Bradford, Mass.

WRITE FOR NEW Catalogue. Complete line vegetable and flower plants. Sunsweet Plant Farms, Chula, Georgia.

NORTHERN GROWN Strawberry Plants Increased from Indexed virus free Red Stele free plants under a program to give you clean plants of all standard varieties. Adapted to Northeast. Also New Jerseybelle Midway and others. Vigorous 1 year Waltham Washington asparagus roots. Free catalog. Lewis Farm, 28 Laurel Lane, Andover, Mass.

ONION PLANTS, CHOICE Select, Crystal Wax, Yellow Bermuda, White and Yellow Sweet Spanish; 3 bunches, $1.95; 5 bunches, $2.45; 10 bunches, $3.85; 20 bunches, $5.95; 30 bunches, $7.50, postpaid; crate (60 bunches) $10.95, prepaid Austin Plant Company, Box 853, Austin, Texas.

STRAWBERRY, RASPBERRY plants. All varieties. Fresh dug on order. Free catalog. Special discounts. Free plants. Sprout Plant Farm, Waverly, New York.

CULTIVATED BLUEBERRIES, newest varieties, producing nickle size berries this year, 4 plants $6.00, supply limited. Wm. Kenney RFD #2, Amherst, Mass.

STRAWBERRIES—roots, Stelemaster, Premier, Sparkle, Robinson, Empire and Vermillion. 25-$1.45; 50-$2.00; 100-$3.25; 1,000-$19.00. Asparagus 25-$2.00; 50-$3.00; 100-$4.25; 1,000-$24.00. Rhubarb (Victoria) 6-$1.25; 12-$2.00; 25-$3.50. Horseradish 12-$3.80; 25-$1.50; 50-$2.00; 100-$3.60. Price list on request. Field Plant Farm, Sewell, New Jersey.

500 ASSORTED sweet onion plants $2 postpaid fresh from Texas Onion Plant Company, "Home of the Sweet Onion," Farmersville, Texas.

STRAWBERRY PLANTS: Earlidawn, Howard 17, Catskill, Sparkle, Robinson, 100-$3.25, 500-$11.00, 1000-$21.00. Gem (Everbearing) 100-$1.00. Washington Asparagus: 2 year roots, 100-$5.00, 500-$16.00. One year roots, 100-$3.25, 1000-$20.00. Myatts two year Rhubarb roots, 3-$1.50. Horseradish, 12-$1.00. Raspberry plants: Latham, September, 25-$3.50, 100-$12.00. All postpaid. Fred Drew (Nursery), Agawam, Mass.

SWEET POTATO PLANTS. Nancy Halls, Early Ports, Georgia Reds, Velvet Reds, Allgold, Copper Skin and Bunch. Millions fresh plants carefully packed. Quick shipment. 200-$1.50; 500-$2.50; 1,000-$4.00; 10,000-$35.00. Thrift Plant Farm, Gleason, Tenn.

NURSERY STOCK

EVERGREEN PLANTING STOCK for reforesting. Christmas trees, windbreaks, ornamentals. Growers, quality stock, reasonable prices. Free catalog and Planting Guide. Suncrest Nurseries, Box 5-J, Homer City, Pa.

BABY EVERGREEN SEEDLINGS, transplants. List free. Neuner's Nursery, Eicher Road, Pittsburgh 2, Pa.

CHRISTMAS TREE Seedlings—Write for free price list and Christmas tree record for recording your tree planting data. Raymond Nelson, Christmas Tree Nursery, Dept. A, DuBois, Pa.

SPECIAL OFFER—1000 healthy 3 year 8-16 inch Austrian Pine, French, Spanish, Austrian Scotch Pine or Norway Spruce $25.00. Colo. Blue, 6-10 inch $35.00. Free Planting Guide and price list. Hill Crest Nursery, Box 723A, Indiana, Pa.

EVERGREEN SEEDLINGS and Transplants for Christmas Trees, windbreaks, ornamentals, etc. Pines, spruces and firs included. Send for free price list with "specials" and complete descriptions. Buy 10, 100 or 1000's, low as $9.90 per 1,000 for 3 year seedlings, at nursery. Or come to nursery. Write B. Cronk, Genesee Valley Nursery, Belmont, New York.

CULTIVATED BLUEBERRY Bushes, six 18-30" $5.95; ten 10-18" $7.50, postpaid. Morningbrook, Monson, Mass.

BLUEBERRIES 2/3 FT. Bearing Age $1.15. Rhubarb, trees, shrubs. Free catalog. Commonfields Nursery Ipswich, Mass.

50 EVERGREENS $3.75—Scotch and Austrian Pine, Norway, White and Black Spruce — Graded 10"— 14", Engleman Spruce, Douglas Fir, Blue Spruce 6"—12". Specify kind. Request free price list and planting guide. Special on White Spruce. Menoher's Nursery, Union City, Pa.

SALE—RED, SCOTCH, White Pine 2 yr. $18.00. Blue, Norway, White Spruce 3 yr. $20.00. Balsam, Concolor, Douglas Fir, 3 yr. $22.00 per 1,000. Prepaid. Canada Hemlock, Balsam Fir, Blue & Norway Spruce, $5.00 per 100. Prepaid. Circular free. Unadilla Nursery Farms, Johnson City, N. Y.

SHRUB-TREE SEEDS (collected worldwide) Evergreens, Deciduous (200 varieties). Free catalog. 1,500 Blue Spruce or 1,500 Mugho Pine $1.00. Mellinger's, North Lima 42, Ohio.

FREE NURSERY CATALOG—General nursery stock. Specializing on tree seedlings—evergreen and deciduous. Baby evergreens, supplies, Christmas Tree Seedlings, Blueberries, etc. Mellinger's, North Lima 42, Ohio.

FISHING

FARM-POND-FISH-Traps. Traps for birds; animals. Shawnee, 3934E Buena Vista, Dallas 4, Texas.

NEW & USED EQUIPMENT

AUTOMATION SPECIALISTS serving the better dairymen of the Northeast for over 15 years, milking systems, bulk milk tanks and side opening coolers, barn cleaners, silo unloaders, silos, metal buildings. Livestock taken in trade and also livestock for sale. Nold Farm Supply, Rome, New York.

WANTED — ALLIS-CHALMERS Roto Balers. New or used. Give price and condition. Brice Creesy, Andover, Ohio. Phone 3319.

NEW MASSEY-FERGUSON and Cockshutt equipment. Also largest selection of good used tractors and machinery in Northern New York State. Tractors from $65.00 up. Write or phone. Wanted AC balers, will buy or trade. Will deliver. Phone Lowville 85; Ingersoll's Farm Supply, Martinsburg, New York.

WANTED: DEALERS to handle line of bunk feeders or self-unloading wagon boxes, platform and grain boxes, wagons, spreaders, etc. Address inquiries to Box 514-OC, American Agriculturist, Ithaca, N. Y.

FOR SALE—FARM machinery and tractors, construction and garden equipment and autos and trucks. Write or phone your needs to Phil Gardiner Ten Acres Machinery, Mullica Hill, N. J., phone GRidley 8-6291, or visit us. Baler twine—money back guarantee, $5.95 per bale. Buying and selling recent model tractors and jeeps.

BUILD 350 AMPERE Farm Welder using aircraft generator, plans 25c. Free catalog, welders, kits, surplus items. Dunbar, Minneapolis 8, Minnesota.

8 TON TRUCK HOIST $198.50—$50.00 down. Also 7 other models 2 to 22 ton. Can use agents. Dunbar, Minneapolis 8, Minnesota.

WANTED: 6 OR 8 HP steam engine. O. B. Flumerfelt, Great Meadows, N. J.

OLIVER DIESEL OC6, 42" gauge, good condition. Oliver Diesel OC6, 68" gauge with 3 point pitch, excellent condition. Rice Farms, Jersey Shore, Pa. 398-1391.

CHAIN SAW AT Dealer Cost. Urban, R. D. 4, Binghamton, New York.

SWEET CORN GROWERS. Mobile packing plant for small or large acreage. Edward C. Wheeler, North Reading, Mass. 4-3003.

NH-NEW PORTABLE Heater Crop Dryer $1650. Big saving on other drying equipment. Wanted used Silver King tractors, state model and price. Cobleskill Welding, Cobleskill, N.Y. phone AF4-2481.

LAMINATED RAFTERS & Arches for barns and sheds. Douglas Fir bonded with completely waterproof glue. Popular sizes stocked. Extra heavy rafters — extra low prices. Box S-12, Unadilla Silo Co. Unadilla, N. Y.

KING-SIZE COMMERCIAL tillers—2 Seaman-Andwall Pulvi-Mixers, GM Diesel Engines, power steering good rubber. Ideal for agricultural, landscaping and construction applications. These are large wheel tractors with built-in rotary tillers. Will sell for less than cost of good tractor alone. Write, call, or wire L. B. Smith, Inc., Court Street Road, Syracuse 6, New York telephone HE 7-2611.

JOHN DEERE KBA Disc harrow, IHC late model cultivators for M or H. John Greseck, Richfield Springs, New York.

3 H.P. HOEING MACHINE. No other like it. Uproots all weeds in row and between plants. Very simple. Very sturdy. Women operate easily. Also tills. Depth adjustable 0-6". Self propelled. Buy direct at discount. 30 day trial. One year warranty. Write Autohoe, West De Pere 9, Wisconsin.

INTERNATIONAL TD14, 142 series, dozer with straight blade and rockrake $8,500. Knoxland Farm, Weare, N. H. Tel. Export 8-2481.

100 USED BALERS, all makes and models. New Holland 68, 78, Super 77 PTO, 77-66 and 76—$200. and up. IHC 46-45-55T and 50T—$200 up. John Deere 14-T PTO and motor. Forage wagons—$600 and up, 12 set up and ready to go. 125 crawlers and wheel tractors, loaders, dozers winches on D-2, D-4, OC-3, OC-4. Don Howard—Canandaigua, New York. Largest selection East.

NATION-WIDE re-manufacturer and distributor of qualify automotive products presents its 1962 catalog and prices. Rebuilt engines — Crankshaft Assemblies—Water Pumps—Voltage Regulators. Write for your copy today to: Midwest Asso., P. O. Box 248, Jersey Avenue, New Brunswick, N. J. Dealers invited.

FOR SALE; ALLIS-CHALMERS Roto Baler, good. Also wanted pickup attachment for Case F.2. combine. Wayne Northrup, Tully, N. Y.

USED MOLINE Uni-Tractor with 9' combine, excellent, M-5 tractor demonstrator; used 6' head fox. Elmer Maki, Newfield, N. Y. LN 4-3444.

400-GAL. CHERRY-BURRELL direct expansion tank less than half cost. Richard Jaworski, Hampton, Conn.

FOR SALE AMERICAN sawmill No. 1 and motor all good condition. Raymond Fedderman, Box 83, Prattsburg, N. Y.

GOVERNMENT SURPLUS

BOLT AND NUT assortment N.F. and N.C. thread—Hexhead assorted sizes ¼ to ¾ to 6 inches long $15.00 per 100 pounds. FOB, quality guaranteed. Check with order. Rolling Equipment Co., 1125 Military Rd., Kenmore 17, N.Y.

NAILS — GALVANIZED ¼ to 2½ with ½ heavy head used for nailing corrugated steel. $10.00 per 100 pounds. Check with order. Rolling Equipment Co., 1125 Military Rd., Kenmore 17, New York.

JEEPS $278, AIRPLANES $159, boats $7.88, generators $2.68, typewriters $8.79 are typical government surplus sale prices. Buy 10,001 items wholesale, direct. Full details, 627 locations and procedure only $1.00. Surplus, Box 789-C98, York, Penna.

BOOKS

GREAT PASSAGES—The Favorite Bible Verses, from Genesis to Revelations. A book to treasure. Once seen you'll want more for they make a gift your friends will value. $1.00. United Job Printers, 908 W. Main Street, Mount Pleasant, Pa.

BUY YOUR NEW Encyclopedia Set direct — wholesale. Price list sent on request. Mid-West Book Center, 5136 North Kimball Ave., Chicago 25, Ill.

TARPAULINS

CANVAS TARPAULINS—Direct from factory —nylon reinforced eyelets, medium weight. Cut size—7x9 feet, $5.67; 8x12 feet, $8.64; 12x14 feet, $15.12. Write for complete list of sizes and samples. Our 67th year. Eureka Tent & Awning Co., Inc., Binghamton, New York.

WOOL

SEND WOOL TO us for beautiful, warm blankets. Free literature. West Texas Woolen Mills, 443 Main, Eldorado, Texas.

SILOS

AUTOMATIC FEEDING saves time and hard work. Feed mechanically with the Silo-Matic Unloader. "Scru-Feed'n' Bunk Conveyor and Pro-Met'r concentrate dispenser. Proven equipment guaranteed. Free pictures and plans. Dealer inquiries invited. Write Van Dusen & Company, Inc. Dept. A, Wayzata, Minn.

A WOOD SILO is your best investment—wood means warmth, with little frozen ensilage . . . no acid riddled walls. For catalog write Box BS-42, Unadilla Silo Co., Unadilla, N. Y. Also manufacturers of glue-laminated arches and rafters for barns and sheds. Write for information.

STAMPS & COINS

OLD COINS WANTED. Illustrated catalog 25c Hutchinson's, Box 6256, Philadelphia, Penna.

SILVER DOLLAR $1.40; 5 V-Nickels $1.00; Morgan Half-Dollar 85c; Indianhead Cent 25c; Barber Dime 40c; List Coins wanted! Nelson, 346-A, Rye, N. Y.

MAYFLOWER STAMP Album 10c. 407 illustrations, 64 pages. Approvals accompanying. Niagara Stamps, St. Catharines 711, Ontario.

105 DIVERSIFIED British Empire 10c. Approvals included. Linstamps, St. Catharines 111, Ontario.

PHILATELIC JUNGLE 10c. Fifteen zoological specimens. Approvals included. Free watermark detector. Crown Stamps, Virgil 311, Ontario.

BUILDINGS

STEEL BUILDINGS, Shenango, America's finest and most economical building. Engineered to suit your specific needs. Up to 60 feet clear span, 20% more usable space. Serving both agriculture and industry. For free information write or call M. W. Lidstone, P. O. Box 92, Southfield, Massachusetts. Telephone SHeffield, Mass. 229-3139.

ALL STEEL BUILDINGS designed especially for every farm use, now available as low as .94c per sq. ft. Completely new "Tapered Beam" design opens new field for superior farm building construction. Most standard buildings can be erected complete in 1 to 3 days with ordinary farm tools. Ask your local barn builder or write direct. A few good territories available to barn building contractors or supply distributors. Atlantic Steel Products, Box 208, Avon, New York.

MISCELLANEOUS

STOP ITCHING. Promotes healing of piles, psoriasis, eczema. "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed 3 oz. $1.00 postpaid. Roberts Pharmacy, Lisbon Falls, Maine.

AMAZING WHOLESALE Catalog! 100,000 products—save 70% — sporting goods, housewares, everything! Econ-O-Mart, Whippany 20, New Jersey.

"TOBACCO": SMOKING (ready-mixed) or chewing (sweet), 5 pounds $3.00 postpaid. Fred Stoker, Dresden, Tennessee.

QUICK-JOHN FOR septic troubles, outdoor toilets. New, exclusive enzyme-bacterial formula digests solids, grease, paper, etc. Ends backups, odors, pumping, digging. Harmless to plumbing. Six treatments in handy flush packets. $2.50 postpaid. 12, $4.50. Money back guarantee! Ryter Co., Madelia 20, Minn.

HOW TO TRAP Sparrows and starlings with famed "Black Lily" elevator traps. New information everyone should have. It's free. Simply address, Sparrowtraps, 504 Detroit Lakes, Minnesota.

PARTS FOR STOVES, furnaces; coal, oil, gas, electric. Empire Stove Co., 793 Broadway, Albany, New York.

RUBBER STAMPS—Labels. Printing. Grafting Kits. Kennedy Portraits. Mailbox Nameplates. Catalog. Champlain Industries, Hinesburg, Vermont.

PARTY GAMES. Children's, Adult's. Two sixty page books 50c postpaid! Book Nook, 5040-2 North Elkhart Avenue, Milwaukee 17, Wisconsin.

VISIT CENTRAL New York's largest surplus store. G. I. clothing, paint, hardware, generators, bunk beds, stoves. Hydraulic oil 6 gallons $2.00. Reile's, Folts & Harter Sts., Herkimer, N. Y.

FREE! FREE! A useful $1.00 value gift. Plus our big new bargain catalog. $1.00 Refundable. You can't lose. Baldwin's Box 257-A, Norristown, Penna.

NEW FREE FOLDER of primitive and colonial furniture hand finished by Vermont craftsmen. Vermont Treeforms, Inc., Groton, Vermont.

AFRAID OF LIGHTNING? Don't be—call us for free inspection. Survey and exact cost on complete lightning rod service. Morse-Collins Inc., 148 Coddington Road, Ithaca, N. Y. Phone 4-0445.

1960 CREW LEADERS, rural surveys your county. Century System, Ithaca, N. Y.

SADDLES—HORSE and pony equipment at big discounts. Send 50¢ for catalog and prices. Diamond K Ranch, Waterville, N. Y.

MUSIC

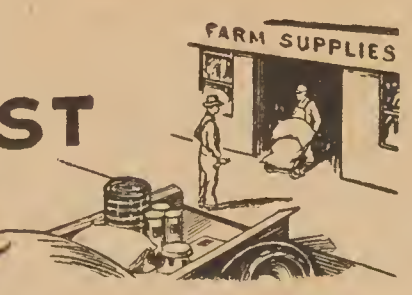
LEARN THE GUITAR at home. Chords, notes, rock 'n roll, western style. $3.00 complete, postpaid, guaranteed. Reilly's, 35 Ely Street, Binghamton 3, New York.

PLASTIC FILM

PLASTIC: TWO CLEAR 9x12' $1.50. Triple weight tarpaulin 9x12' $2.00. Black $2.50. 9x20' $3.25. Black $4.00. Postpaid. Catalog. Adval, Box 439E, Hackensack, N. J.

(Continued on Page 52)

With AMERICAN AGRICULTURIST Advertisers





The LP-gas industry which celebrates its 50th anniversary this year, began with attempts to conserve mysterious "burning gases" that were a wasted resource. Today, six billion dollars are invested in facilities to produce and market ten billion gallons of this fuel annually.

A far cry from the industry's simple beginning in 1912 (a still in the West Virginia hills pictured above lower right) are the modern pipeline, rail and truck terminals for distribution of liquified petroleum gas that today supplies heat and power for more than 12 million users on farms, in small towns and in suburbs.

New and expanded usages just ahead are the basis for sound financial predictions of continued industry growth. The farm that uses no other fuel is already a reality—LP-gas for killing weeds in row crops, heat for baby chicks and pigs, a tool for cutting and forging metal. It heats and cools the home and fuels automatic kitchen and laundry appliances.

Scientists and engineers are on the verge of developing a so-called "fuel cell" that may revolutionize city living as well.

The fuel cell will consume LP-gas chemically in somewhat the fashion of a battery. Producing more electricity for the money than any other method now in use, the all-LP-home for the city may not be far away. At the twist of a knob, the next generation of housewives may have clean, hot flame for furnace and appliances, and power for lights and vacuum cleaner as well.

For more information write to NATIONAL LP-GAS COUNCIL, 1515 Chicago Avenue, Evanston, Illinois.

The Cooperative Grange League Federation of Ithaca, New York, took five first-place awards at the 16th annual Cooperative Information Service Fair held at San Francisco, California, and sponsored by the National Council of Farmer Cooperatives, Washington, D. C.

The awards were given for the following informational - promotional materials exhibited at the Fair: Membership Information Bulletin—"Practical Doggery"; Advertising Folder — "G.L.F. Egg Program"; Product or Service Advertisement, Part Color—"Proven in G.L.F. Corn Trials"; Advertising Mailing Card—"Introducing! New Avon Wheat"; Promotional Letter—"Technical Field Service Letter—July 15."

JOHN DEERE COMPANY, Moline, Illinois, has been working hard to improve their mowers. The "Dawsonized" armored sickle section is made by fusing a thin layer of tungsten carbide to the cutting edge of a tough, ductile alloy steel and produces a self-sharpening sickle.

Another development, the John Deere Loctite Compound, will lock all types of nuts, bolts, and other assemblies on farm equipment. No amount of vibration will loosen the nuts, but they are still removable with ordinary tools.

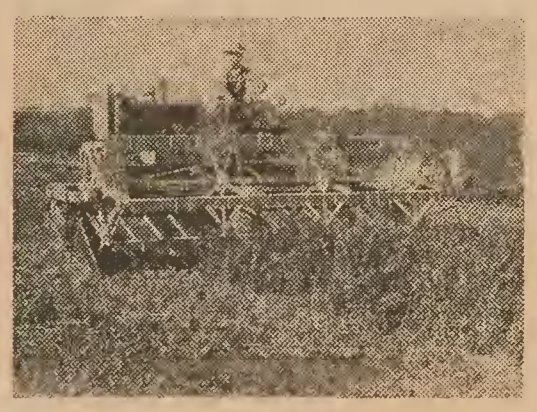
The automatic jump plow made by BRILLION IRON WORKS, INC., Brillion, Wisconsin, rides over stones or other obstructions and resets itself at the proper depth, with no slowing of forward speed. The plow is fully mounted, fitting all three point hitch tractors.

Di-Syston granular insecticide, manufactured by CHEMAGRO CORPORATION, Kansas City, Missouri, has been registered for use on cabbage and alfalfa to control aphids and mites. It is easy and economical to handle and apply.

A full trailing mower, designed for tandem use with a hay conditioner, is made by NEW IDEA FARM EQUIPMENT COMPANY, Coldwater, Ohio. It needs only to be hooked up to the tractor drawbar and PTO for fast mowing and conditioning and features a mechanical cutterbar lift. Any make or model of conditioner can be operated behind this mower.



The self-propelled No. 201 Windrower made by INTERNATIONAL HARVESTER COMPANY, 180 North Michigan Avenue, Chicago 1, Illinois, has a 42 horsepower engine, heavy duty construction, and a 640 rpm knife speed for the strength and capacity of high-yielding hay and grain. Coupled with a big-capacity hay conditioner, the implement can cut, condition, and windrow in one easy operation. A wide selection of special equipment is available to meet unusual crop and field conditions.





Control Worms in Sheep

DRENCHING sheep with phenothiazine should be done in the spring before going to pasture, and again after they come into winter quarters, and a mixture of one pound of phenothiazine and nine pounds of salt—but no other salt—should be kept before the flock during the grazing season.

Under some grazing conditions, it may be necessary to drench the flock every three or four weeks with a solution of copper sulfate and nicotine sulfate.

Phenothiazine Drench

To prepare the phenothiazine drench, place one pound of drench grade powder in a pail. Break up all small lumps, then add one pint of water and stir thoroughly until it makes a stiff paste. Now add a second pint of water, stir until smooth, add a third pint of water and again stir thoroughly. The drench is now ready. A total of 3 pints (48 fluid ounces) of water plus 16 ounces by weight of powder makes about two quarts (64 fluid ounces) of drench.

Dosage

4 fluid ounces for each mature sheep.

2 fluid ounces for each lamb (50 to 70 pounds).

Four fluid ounces of this drench contains about one ounce of phenothiazine powder. The mixture should be stirred frequently when being used.

If a thicker drench is preferred, add only enough water to make one quart of the drench with one pound of phenothiazine. In this case the dosage would be two ounces for adults; one ounce for lambs.

Phenothiazine does not remove tapeworms, and it colors the urine red. To avoid staining the wool, keep the animals on thick bedding, or on ground where urine will be quickly absorbed.

Cu-Nic Drench

The copper sulfate solution is made by dissolving one ounce (by weight) of clear blue copper sulfate crystals in one pint of boiling water, then adding enough cold water to make a total of three quarts of solution. To this amount of copper sulfate solution, one fluid ounce of 40% nicotine sulfate (old formula Black Leaf 40) solution is added. This amount of drenching solution is enough for 25 adult sheep or nearly twice as many lambs.

One fluid ounce of this solution is given for approximately each 35 pounds of lamb or sheep. Not more than five ounces should be given to any sheep; the dose for an average-sized ewe is 3½ fluid ounces.

Incidentally, copper sulfate should **never** be mixed in a metal receptacle, because the tin in the container may be eroded and a poisonous compound result.

Feed and water should be withheld for 12 to 18 hours before and two to three hours after treatment.

ADDITIONAL CLASSIFIED ADS

(Continued from Page 51)

FARMS WANTED

WANTED TO RENT farm to handle 40 milk cows, 30 head young stock in vicinity of Troy, Albany or Schenectady. Leonard Reed, R.D. #2, Box 101, North Troy, New York.

LARGE FARM wanted—bare or equipped, good milk market, cash. Private party. Box 514-ZS, American Agriculturist, Ithaca, N. Y.

WE WILL BUY in New England, Eastern New York State, Large (100 head or more) Dairy operations. On lease-purchase agreement only, partners are brothers, business executive and one of the top dairy and cattle managers. Farms must be complete operations—Land—Cattle and Equipment included. Will assume any present mortgage. Pay top prices and interest. Maximum mortgage 10 years. Write—wire—phone George Andrews, Executive Vice-President, Townsend Machine & Tool Corp., 156 Goffe Street, New Haven, Conn. Phone ST 7-6793.

FLOWERS & BULBS

AFRICAN VIOLETS—Old and new; leaves 10¢ each. Postage 25¢ Marjorie Card, Edmeston, New York.

DAHLIAS. TWENTY assorted three dollars postpaid. George Mostert, Delhi, New York.

HARDY—OLD-FASHIONED dahlias. Double, mixed, mostly red. Dozen $1.00 postpaid. Marsha Snyder, Lisbon, New York.

DAHLIAS—1 OLD-FASHIONED Pink Ball, 3 Maroon Ball, 1 large lavender, 3 white and lavender pompom, 1 maroon pompom, 1 yellow pompom. One dollar fifty cents, postpaid Florence Moyer, Reinholds, Pennsylvania.

BUSINESS OPPORTUNITIES

FRUIT AND VEGETABLE stand that takes in $3,000.00 weekly. Right in the middle of six acre vegetable garden on main highway, (Route #13). Back of this is another 15 acre cash crop garden and 20 acres of prime producing apples, pears and peaches from earliest to latest varieties. Owner retiring. Albert Violette, Lunenburg, Mass.

FOR SALE, CHRISTMAS Tree Plantation, 300 acres, 5,000 Scotch Pine ready for fall market, terms. E. Herrick, Margaretville, N. Y. Delaware County.

APPLE ORCHARD—mixed varieties, average 14,000 bu., sorting, holding and storage buildings plus cold storage plant. All in good condition. Lease or Sale. Write J. Burbank, 184 North Street, Pittsfield, Mass.

NEED CASH? EARN it raising fishworms! Write. Oakhaven-6, Cedar Hill, Texas.

WOMEN'S INTEREST

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George, 3605 South 15th, Minneapolis 7, Minnesota.

QUILT PIECES — Beautiful colors! 1¼ lbs., $1.00. 3¼ lbs. $2.00 Guaranteed! Ward Gould, 92-A North, Medfield, Massachusetts.

FOR SALE. PURE herbs and spices. Send 25 cents for Recipe Book and price list to: Mohawk Herb and Spice Co., 2492 Torringford St., Torrington, Conn.

FREE—WALLPAPER Catalog, 1961-62 edition. Smart new patterns. Save 50 percent. Instructions for measuring and hanging. We pay postage. Penn Wall Paper Mills, Dept O, Bridgeton, N. J.

"WE ARE VERY pleased with your publication since we started using it. For your edification, as of this date, this month we have had 119 orders from your January publication. We certainly place the American Agriculturist among the most valued in the large list of publications that we advertise in throughout the country." Thompson Remnant Co., Brookline 46, Mass.

QUILT PIECES — Velvets 1¾ pounds $2.00. Beautiful colorfast cotton prints—3¾ pounds $2.00, postpaid, guaranteed. Nucleus, Dept. AA, 24 Laurel Hill Terrace, New York 33, New York.

PLASTIC FREEZER containers. Square pints, $9.75; quarts, $14.75 per hundred, postpaid. Sample pint, 25¢. Oxboro, Box 7097N, Minneapolis 11, Minn.

RUG BRAIDERS: Complete supplies available: precut and prerolled wool—36 standard colors. Braiders—needles—lacing and stand. Send 25¢ for color chart. Carten Redi-Braid. P.O. Box 61, Devon, Conn. Dept. A.

QUILT PIECES — 7 pounds—$2.00. Beautiful cotton prints. Guaranteed. A. Bromberg, 1558 Minford Place, New York 60, New York.

RAISE MONEY FAST! For your club or organization. Sell the brand new Forget Me Not Select-A-Note. For a limited time only, make 100% profit. Dozens of other fine products for your fund raising. Send for free catalog and details. The Brisko Co., Shaftsbury 5, Vt.

QUILT PIECE clearance. Ten pounds $2.00. Postage 90¢. Samples 25c. Pieces, 373 Haines Falls, New York.

OLD FASHIONED herb garden—Easily grown with Mellinger's quality herb seeds. Eight different varieties $2.00; fourteen varieties $3.00. Mellinger's, North Lima 42, Ohio.

QUILT PIECES: 5 pounds—$2.00. Colorfast, cotton prints. Guaranteed. Sewers bundle: 3 pounds—$2.50. Elizabeth Thompson, 82 Walnut, Brookline 46, Massachusetts.

COLORFUL PERSONALIZED Pencils for Easter Baskets or Birthdays, 25 for $1.00, name in gold, send $1.00 to Wm. Gilchrist, 129 S. Grove St., East Aurora, New York.

Good Chicks from the Best Strains . . .
For brown eggs: Harco Sex Links or our R.I. Reds. For white eggs: Arbor Acres Queens or Darby Strain Cross. For eggs and meat: Silver Hallcross or Golden Hallcross. For meat: Vantress or Peterson Cross. Fast, guaranteed-live delivery. You must be satisfied. Write for price list: 214 Cook Hill Road.
Hall Bros. Hatchery, Inc., Wallingford, Conn.

Forage Insect Control

By GEORGE G. GYRISCO*

FARMERS in areas where the alfalfa weevil is abundant, or where the pea aphid, meadow spittlebug and potato leafhopper are a problem, generally know about and use an insect control program frequently, if not every year. Why? Because it is good business. An expenditure of $1.50 to $2 per acre for materials can give a 5 to 10-fold return on the investment in insecticides.

The program of forage insect control is a simple one—an application in fall or early spring for alfalfa weevil and spittlebug, and another for potato leafhopper on the second and third cuttings. Occasionally, a special application is needed to meet sudden armyworm or grasshopper invasions.

Formulations

Insecticides can be purchased as dusts, wettable powders, liquid concentrates or granulars.

Dusts are usually messy to use, quite expensive, and raise the problem of drifting to areas where they are not wanted.

Wettable powders are "plant-safe" to use but may clog low-pressure, low-volume equipment—special expensive sprayers are needed to apply them.

Granulars are fine, but they are expensive, and special equipment is usually needed to apply them uniformly and at the low levels desired.

For my money, I will take the **liquid concentrates** applied with a weed sprayer. The liquid concentrate is easy to measure out; it does not clog nozzles; it is cheap and effective. The weed sprayer uses little water and is simple to maintain; it is light for riding on wet fields in spring; it can also be used with weed killers on corn or oats.

Plan on using 35-40 pounds of pressure and 10-20 gallons of spray per acre. In general, one should strive for 20 or more gallons of spray per acre at 35-40 pounds of pressure. Less water will give you poor coverage and higher pressures will cause excessive misting and drift.

Fall Treatment

Fall treatment for alfalfa weevil control using one pound per acre of dieldrin or heptachlor will give you good weevil control, along with excellent spittlebug control the following year. For best results apply these insecticides soon after the last harvest in September—in New York this will be the middle or late September. Farther South it will be later and will extend up to early winter in the Maryland area.

If you are like me, you probably just were too busy to do it in the fall of 1961 and will have to treat this spring. Human nature being what it is, most farmers will gamble and wait until spring to treat. This means that such effective spittlebug killers as heptachlor and dieldrin cannot be used in spring since these may leave a residue at harvest. There must be no residues of heptachlor or dieldrin present on the hay at harvest, nor any other insecticide that may contaminate the milk.

Spring Treatment

If you can make grass silage, chopping the first cutting **early** insures highest quality, more milk, and insect control. If you make silage or hay very early, there is no need to control alfalfa weevil, pea aphid or spittlebug—these will die in the silage. South of New York State, though, treating may be necessary even though you make silage.

Our first recommendation for the spring is to harvest early before insect damage and treat the stubble and new young growth. Early-cut forages give maximum TDN and quality, and insure more milk in the pail.

To treat stubble, use 0.5 pound of lindane (except on soils rotated with vegetables) per acre. This treatment, applied immediately after the first cutting, will control aphids, spittlebugs and weevils. On vegetable lands, where lindane may cause off-flavors or odor to vegetables grown in a rotation to follow, use methoxychlor at 1-2 pounds per acre, or endrin at a quarter of a pound per acre. These will control both weevil and spittlebugs, as well as most pea aphids. If pea aphids are particularly abundant, parathion or malathion should be used at the rate of 0.5 to 1.0 pound per acre. Parathion and malathion will not control spittlebugs.

Following the second and subsequent cuttings, when the aftermath is 2-4 inches high apply methoxychlor at the rate of 1 pound per acre for leafhopper protection and for reducing and keeping the alfalfa weevil at low levels.

In general, the recommendations I have given here will produce good hay without harmful residues. Except for methoxychlor, do not use chlorinated hydrocarbons such as endrin and lindane beyond the 4-inch, and better still, stubble stage. Dieldrin, aldrin, chlordane, heptachlor, etc. should not be used in the current season for hay to be used as feed for dairy cattle, as these will lead to residue in milk. Look ahead to next fall for the use of these materials.

Phosphates such as malathion, Diazinon and parathion can be fed safely to dairy cattle because they are broken down in the rumen. Follow directions on the label carefully in the use of any pesticide. Read the directions first.

*Entomologist, Cornell University

Herd Average:

16,098 lbs. milk, 638 lbs. fat

John Miller Plans to

Stay 100% NYABC



John Miller of Otego, N. Y., owner of one of the 15 New York DHIC herds which exceeded 600 lbs. fat in 1960-61, has been breeding his Briar Creek herd 100% NYABC since 1919. Summing up his future breeding program, Miller says, "NYABC sires helped me get where I'm at and I plan to stay with them 100%."

Here's Why

Type — Classified four times, the herd's consecutive averages are 79.5, 80.2, 80.8 and 81.0 percent. Miller plans to classify again this summer.

Production —At Briar Creek production has nearly doubled in 14 years.

DHIC testing year	Number of cows	Pounds of milk	Pounds of fat
1947-48	34	8,456	355
1948-49	32	9,161	367
1949-50	30	10,662	408
1950-51	29	10,521	411
1951-52	32	11,211	423
1952-53	32	11,642	438
1953-54	32	12,222	447
1954-55	33	12,226	457
1955-56	32	13,410	492
1956-57	32	14,253	527
1957-58	32	14,408	548
1958-59	34	15,038	570
1959-60	31	14,783	572
1960-61	32	16,098	638

NYABC NEW YORK ARTIFICIAL BREEDERS' COOPERATIVE ITHACA, N.Y.

Whatever your herd level, you can depend on NYABC AB Proved Sires. See your NYABC technician for top bulls in your dairy breed.

Your Headquarters for Superior AB Proved Sires



Ed Eastman's Page

Best Spot On The Farm

WHEN we moved off our farm to the city of Ithaca in 1957, one of the hardest adjustments I had to make was to give up a large flower and vegetable garden. For many years we prided ourselves on having one of the best gardens in our latitude, and when I bragged about something like having the earliest sweet corn, it was fun to be swamped with letters stating that the writers had had their first mess of corn before we had ours.



Practically everybody who has land can have a garden, and you don't know what you miss if you don't have one and really take care of it. Too often, however, the garden, which can be the most important piece of land on the farm, is the one most neglected. It is impossible to take any real interest in a garden which is just a breeding place for too many weeds, blights, and insects, or if it's too hard work.

For example, many are the small garden spots I have seen surrounded by fence or hedge, where blight and insects breed and weeds grow and where it is difficult to get anywhere near the edges of the garden with a field tractor or even a garden tractor. If it is at all possible, the garden spot should be **rotated** to kill off weeds and other pests. It should be near the house where a person can slip into it for just a few minutes of work and relief from pressures, and where vegetables can be gathered quickly.

If land is available, the garden should be laid out so that it can be cultivated by a tractor to avoid hand work. Of course the garden spot should be just about the most fertile place on the farm in humus and plant food, and much hard work particularly among vegetables can be saved by the use of black plastic mulch.

I always preferred fall plowing in order to have time to harrow the garden thoroughly several times in the spring before planting, to get a fine tilth and to kill weeds.

Many gardeners claim they can get the best results in upstate New York and New England by planting as late as Memorial Day, but I never could wait. I got the earliest harvest by planting early, and some vegetables like peas **must** be planted early for best results.

Mother used to get excellent plants like tomatoes by starting them in the kitchen window. As a boy, how I loved to see them growing—one of the first signs of the coming summer. But while some of you may not agree, I always got stronger, better plants from a nearby nurseryman. Later I grew our plants in our own greenhouse.

On varieties, we always followed two or three basic principles, one of which was to have a succession of the same variety. We did this in two ways. Take sweet corn. We studied the catalogs to get the very earliest variety possible, as well as the late maturing ones. We also planted the same variety of something that we were fond of (like Golden Cross Bantam sweet corn) on different dates so as to have a succession. One year, we even started some corn in the greenhouse and transplanted it later in the garden. We got a few early ears this way, just enough to brag that we beat everyone else in our latitude. By using early and late varieties, and by successive plantings we managed to have sweet corn from late July to well past frost.

In general, we stuck to well known varieties of all the vegetables which we knew from experience we liked but we also had a lot of fun experimenting with new varieties.

As millions have proved, it is not necessary to live on a farm to have a good garden—in fact, some of the very best I have seen are non-farm gardens for the simple reason that even though space and opportunity to work the garden with power are limited, these limitations are more than made up for by the **interest** in the garden and the care that its owners give it. Even in the city, we still have a small flower garden blazing with color!

With a very small garden, it may be necessary to plant rows near together and use more hand work. Even with a small garden, in order to save work it may pay you to buy a garden tractor.

The payoff from our garden was that we ate better than we ever have since. It's just not possible to buy good fresh vegetables in town, although there are some markets, particularly roadside markets, where it is possible to get very fresh vegetables because the owners make a special effort to keep them fresh picked. With the use of a freezer, we extend the season of good, almost fresh vegetables throughout the entire year. There's nothing in good eating to compare with going out into the garden for sweet corn and popping it into the kettle five minutes later. That goes, to some extent also, for several other vegetables.

Another payoff from gardening if you really take an interest in it is the deep satisfaction of watching and helping a variety of things to grow. No other place in the world can one come so close to God and to nature as on a farm with crops and animals and gardening.



The Gardener's Payoff

BETTER GET AT IT NOW!

THIS is a plea to parents of high school seniors to impress on these young people the great importance of these last few months of high school work.

In counseling many college freshmen the first question I ask them after we have discussed their personal problems is: "What was your average high school standing?"

If it is below 80%, or a B grade, then the freshman is almost sure to have trouble with his college work.

Because of the tremendous increase in the number of students who wish to enter college, a student with a low high school record can't even get into college. There is just not enough room to accept all the applications. If he does get in, he is likely soon to go down the road of probation leading to the dead end of "bust out."

Of course good preparation, either for entering college or for life, starts with the child's first day in school. Good work becomes increasingly important when he enters high school, but there's still a good chance for the high school senior to dig in right now in order to bring up his school record before the term ends this June.

GRASS OR CORN SILAGE — WHICH?

ALTHOUGH the practice of putting grass and legumes in the silo is well established, there are still thousands of dairymen who stick exclusively to corn silage. They have good arguments, in addition to the one that grass silage oftentimes has an odor that womenfolks don't exactly like.

No other crop will produce as much TDN (total digestible nutrients) per acre as will corn. Twenty tons of corn per acre, which is a good yield, will produce 396 TDN per ton, and 7,920 TDN per acre.

In the Northeast, the nearest crop to corn in terms of TDN is alfalfa. Ten tons of alfalfa silage is a good yield with 430 pounds of TDN per ton. That is only a little over half as much TDN per acre as corn, but there are other considerations in favor of legume silage.

In the first place, there is the matter of the ease of putting grass and legumes into the silo, especially when the weather is bad.

Also legumes contain a much higher protein content. If grass silage containing a high amount of protein will help to cut down the grain bill, then certainly this is an important factor.

I have always been a firm believer in the farmer's judgment. That's one reason why I hate to see the government telling farmers what to do. For example, if a majority of farmers stick to corn silage over grass silage, or vice versa, I'll accept their judgment. Also, if an individual farmer finds from his experience that either kind of silage is the best for him, then that's the one for him to use.

EASTMAN'S CHESTNUT

THE other day, Jim Hall, general manager of **American Agriculturist,** Gordon Conklin, editor, and I went out to lunch together. In the course of some kidding back and forth, Gordon suddenly said:

"Jim, if the Devil should suddenly appear here for one of us, which one would he take?"

Without a moment's hesitation, Jim replied:

"Why, me, of course. He's sure of you any time!"

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mr. Frank Wukman, Akron $ 52.80
(refund on pullets)
Mr. James Webber Franklinville 14.11
(refund on parts)
Mrs. Kenneth White, Whitesville 5.00
(settlement of claim)
Mr. Thomas Gilbert, Lake Minnewaska 4.28
(refund on order)
Mrs. Lloyd Underdown, Odessa 7.48
(refund on dress)
Mr. Alfred Hess, Arkport 114.80
(insurance claim)
Mr. Clarence Reed, Heuvelton 65.00
(refund on deposit)
Mrs. Lee Brown, Tully 1.10
(refund on centerpiece)
Mr. Elmer Gorton, White Sulphur Springs 4.03
(refund on lights)

PENNSYLVANIA

Mrs. Andy Amorine, Lake Ariel 3.50
(refund on order)
Mrs. Wesley Doud, Covington 60.00
(refund on generator)

NEW JERSEY

Mrs. Frances Nunn, Palmyra 2.50
(refund on premium)
Mrs. Harvey Bennett, Amagansett 21.00
(refund on parts)

MARYLAND

Mr. Charles J. Fleming, Mt. Airy 7.78
(refund on clothes)

NEW HAMPSHIRE

Mr. Max Goodwin, Lisbon 9.49
(refund on order)
Mr. Alphonse Wnytack Manchester 100.00
(payment on lumber)
Mr. W. W. Day, Lyme Center 15.00
(payment for clock)

VERMONT

Mrs. Lena R. Harrington, W. Woodstock 9.78
(refund on binoculars)

MASSACHUSETTS

Mr. Herbert L. Wanamaker, Beverly 4.00
(refund on glasses)

HE INVESTIGATED

"I recently wrote the Better Business Bureau to inquire about a company which offers franchises for complete mail order services at a cost of $25, covering a one year period. They told me they had had numerous inquiries and had written the company twice in an effort get information about their offer and the setup of the company, but had no answer.

"I have to work hard for my wages. Why can't we put a stop to companies like this? Is it possible to charge them with mail fraud?"

The Post Office Department gets indictments against persons using the mails to defraud whenever they have suffieient evidenec. Too often people do not make known their complaints against eompanies operating fraudulently. If enough people would "investigate before they invest" as this reader did, sueh companies would soon be out of business.

The National Better Business Bureau recommends that persons eonsidering buying a plan whieh offers big returns to inexperienced persons going into the mail order business ask for the names of previous purchasers and cheek with them to see what their experience has been. They say, "The mail order business, like other new business ventures, is fraught with possibilities of failure."

CAN YOU HELP?

If anyone has a hymnbook containing the hymn, "A Little Talk with Jesus"; or the book "White's School for the Reed Organ" please contaet Mrs. Evelyn M. Webb, Route 6, Reidsville, N. C.

Mrs. Ray Matthews, Box 342, Fort Fairfield, Me. would like to buy a book on drawing and painting. Also, she would like the songs, "The Cumberland Crew," and one beginning "It was in Merrie England" about a prize fight between American John Heenan and an English man.

During the years 1914-1918 Orange Judd produced some New York State county maps. If any reader of AMERICAN AGRICULTURIST has such a map, or has any information on them, please contact Professor A. H. Wright, 113 E. Upland Road, Ithaca, New York.

How Can You Tell?

12 Years



$3000.00 check delivered to Mrs. Harold Vincent of Marathon, N. Y. by agent R. G. Ennis.

Harold Vincent, 69 year old dairy farmer, was driving his tractor out to bring in the cows. The tractor went off a farm road then down a gorge. Mr. Vincent was hurled from the tractor before it hit bottom. A fractured skull caused his death.

Back in 1949 Mr. Vincent first took out a North American policy, in 1953 he increased the benefits. Every year he renewed the policy on time so that the loss of life payment to his widow increased from $2000 to $3000.

Part of Mrs. Vincent's thank you letter reads:

"I am glad that we always kept up our insurance. I will still keep mine up."

Mrs Susie Vincent

2 Months



Mrs. Earl Brown of Cincinnatus, N. Y. received $1500.00 from agent R. G. Ennis.

Their 28 year old son, Robert, was a hired man on a farm near Groton, N. Y. At night the house caught fire. Robert first phoned for help and then rushed upstairs to rescue the children of the family where he worked. In his attempt he was overcome by smoke, firemen found his body just a short ways from safety.

Agent Raymond Ennis sold Mr. Brown a North American policy in October 1961—just two months later, on Christmas eve, he perished in the horrible fire.

The Browns sent this note:

"Nothing can ever replace our son, but we are so thankful for the help North American has given us in our time of need and sorrow. Other families like ours cannot afford to be without this protection."

Mr and Mrs Earl Brown

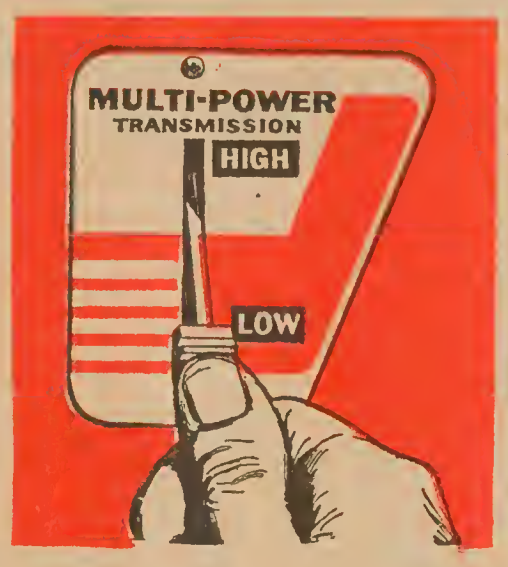
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(In New York State)
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FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING — ITHACA, NEW YORK

LOOK WHAT'S NEW ON THE

WORLD'S BEST SELLER



Now Shift on-the-go at the Flip of a Switch!

It's a fact: the Massey-Ferguson 35 is the world's all-time best-selling tractor. Why? Mostly because of the Ferguson System—that often-copied but never-equalled system of handling mounted implements with uncanny precision and ease. Last year, MF 35 sales were boosted higher than ever by the new 3-cylinder M-F diesel engine and its outstanding fuel economy. Now this 3-plow hustler is headed for even greater popularity among farmers, because of Massey-Ferguson's new Multi-Power transmission. It's the simplest, most practical shift on-the-go ever engineered. Lets you gear down or speed up—right on-the-go—at the flip of a switch. Gives you split-second fingertip control over ground speed, without affecting PTO speed. Changes gears smoothly, effortlessly, without any clashing jolt. Also gives you 12 different forward speeds—all in direct gear drive. Multi-Power is available on all MF 35 models, diesel and gas. Puts more gears, more guts, more get-up-and-go into the "world's best seller" than ever before. Why not see for yourself? Test-drive it. Shift it on-the-go . . . at the flip of a switch! Ask about Multi-Power's low, low price, and those easy M-F time payment plans. See your Massey-Ferguson Dealer today!



Look, Compare . . . Massey-Ferguson World's Largest Manufacturer of Tractors and SP Combines

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AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

MAY 1962

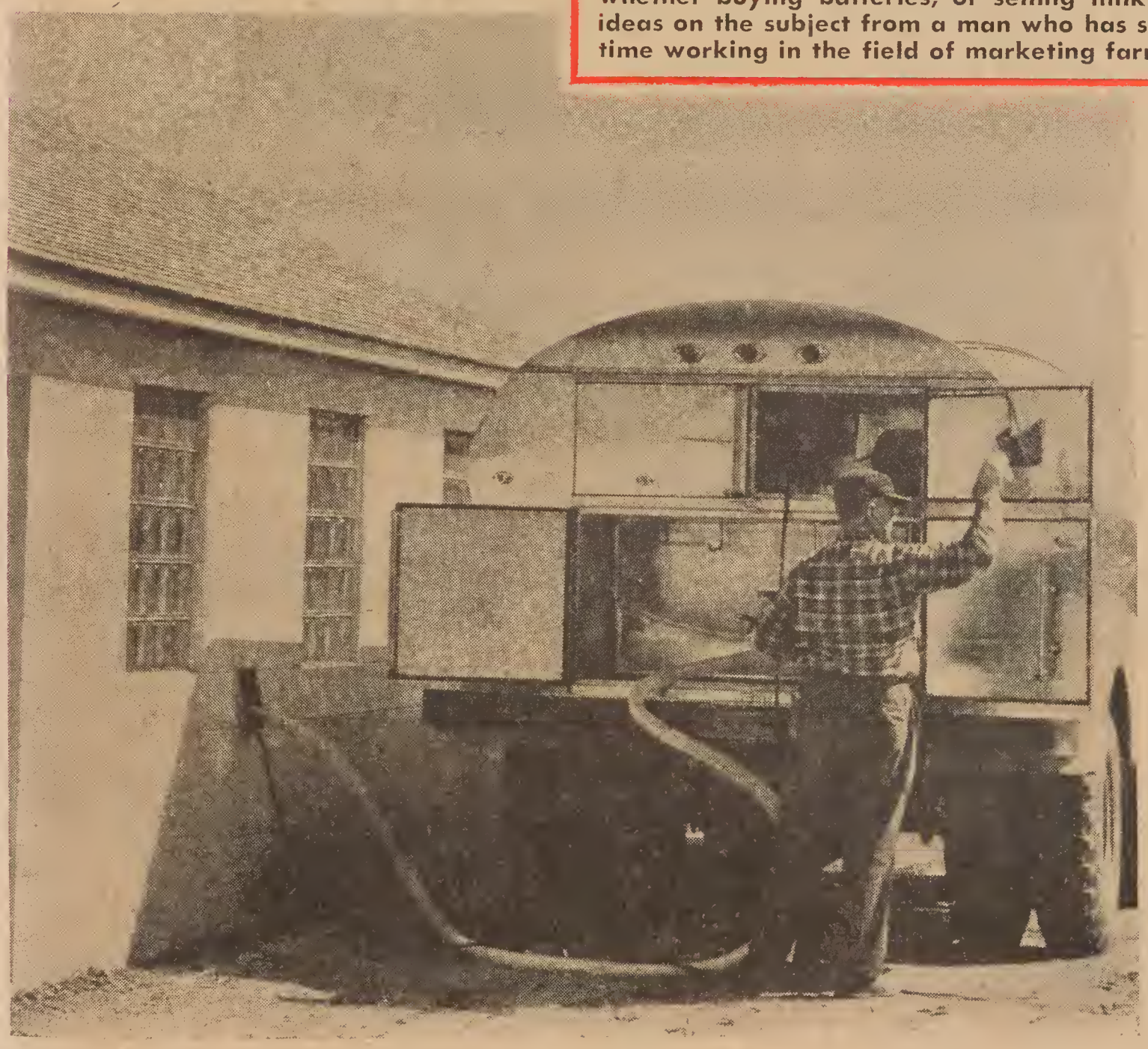
What Path to MARKET POWER?

By MAX E. BRUNK*



FARMER'S DILEMMA

How can farmers have greater bargaining power—whether buying batteries, or selling milk? Here are ideas on the subject from a man who has spent a lifetime working in the field of marketing farm products.



EVERYONE today is looking for more market power; it is a popular subject among businessmen, labor unions, and farmers alike. Within agriculture, it's the style — everyone is for it—it is one issue on which all farm organizations can agree.

Market power implies a degree of producer control over price, and it is assumed (with a certain amount of naivete) that higher price always means higher income. Certainly, after 30 years of experience, we should know the folly of attempting scarcity pricing in an atmosphere of abundance. **True market power lies in controlling the factors affecting price and not in manipulating the price itself.**

It can be argued that there is no greater market power than that derived from a free market. The free market brings about needed adjustments in resources applied to agriculture more effectively and quickly than any other scheme yet devised by man. Indeed, few of you would disagree that the most effective cure for 10 cent hogs or dollar a bushel apples is 10 cent hogs and dollar apples!

While I might argue that the free market is no more brutal than the "slow death" cures of a politically-controlled economy, many of us are unwilling to effect a cure by killing off the weakest patients. Instead, we are much more inclined to accept a partial cure and even to some extent live with the after-effects of a partial remedy. But low prices or controlled markets are not the only alternatives facing American agriculture — although our actions during recent generations would seem to so indicate.

I believe that either extreme is unrealistic in agriculture today. I argue that certain types of controls are **essential** to orderly marketing while others are inconsistent. I am also concerned with who should have the responsibility of these so-called controls — agriculture or government.

It doesn't take much of an analyst to conclude that farmers have little voice in determining the prices they receive for their products. Even on the buying side farmers pay quoted prices. True, they may argue about the price of feed or fertilizer; they may even

(Continued on Page 20)

*Professor of Marketing, Cornell University

Positive Approach To

Our Dairy Problem

By LOU LONGO*

IT IS MY feeling that the serious and alarming part of our problem is not the increased production of milk on farms, but rather the steady **decreasing consumption** of milk per person in the entire country since 1956, which is still continuing at an even faster rate. The year 1960 showed a drop of 3 pounds of fluid milk (Class 1 sales) per person, or about 2%. Every company making a drinkable beverage is after milk's justified place at meals. This serious situation has to be corrected before we can experience any improvement in the present dairy situation.



LOUIS P. LONGO

The surplus of milk is not as great a problem as many are led to believe. In 1960, government purchases amounted to 6.3 billion pounds of fluid milk equivalent; this amounts to one and one-half ounces of milk per person per day, or three tablespoonfuls. It is agreed by experts that the average person in this country needs more milk in their daily diet for minimum nutritional requirements. If consumption had continued beyond 1956 as it did previous to '56, we would not be in our present dilemma. We are among the top dairy-producing nations but rate very low in consumption per person among the list of dairy-producing countries.

Why not a gigantic, dynamic advertising and research program for fluid milk? This program would be backed by a fund of $120 million--$20 million for research and $100 million for consumer education. This fund would be obtained by raising the Class-1 price 20 cents per cwt. in all federal order markets which would result in about this total amount. This could be set up on a "borrow and pay-back program"; when the blend price reaches an increase of 20 cents, it would then be taken over by farmer payment.

Stacks of evidence are available showing proof that advertising has accomplished great goals for many modern industries. Their increased advertising and research budgets are related factors in increased sales, and are a measure of the future ability of that industry. Advertising is described by educators as a persuasive and necessary partner of modern industry. The dairy industry is in need of such a partner.

We dairy farmers are in a very competitive business -- soft drinks, beer, fruit juices, coffee, and all such products are pushing milk out, and pushing hard. Here are some budgets for advertising in 1962: combined soft drink companies--over $200 million; beer companies--$160 million; coffee $50 million, and so on down the line. Three and one-half million dollars will be spent on promotion of fluid milk, and $500 thousand on research.

What's Wrong?

All the products mentioned have experienced **increases in per person consumption since 1956**—all except milk. What's wrong with milk? Is it fallout propaganda or poor publicity on cholesterol? We can be sure we have not seen the last of such material. Some day, and it could be in the near future, an over-ambitious advertising firm with a good soft drink account may make big news of these minor facts.

Dairy farmers will have to take positive action, no matter what type of government program is established, before any material improvement will be seen. To promote, educate, and sell is such positive action. Such a program would bring financial gain to dairy farmers, add to the national economy, and add to the health and well-being of all the people.

In talking to many dairy farmers, I find each has a special idea all his own on how to improve our present situation. This, perhaps, is good it shows farmers are thinking. But as I see it, it also shows the lack of unity on what should be done. In speaking at nine district meetings of the Connecticut Milk Producers Association, I was surprised at the expressions of approval for a large scale consumer education and research program by everyone present. If this is a measure of national feeling, here then is an idea that might bring that sorely needed item unity.

I strongly feel that the program I have briefly outlined will gain the long desired balance of supply demand for the dairy industry. The program is justified, for all other products consumers buy have the cost of advertising included in the retail price—so it should be with milk. There is so much good that can be told about milk, so much good that can be done with milk; it seems a shame to delay telling the nation even one day.

"The trouble with dairy farmers is that on production they are too often advised, but never enough on how to advertise."

*Mr. Longo, whose address is 2992 Hebron Ave., Glastonbury, Connecticut, is a dairyman.





CUT PRODUCTION COSTS—
GROW NUTGRASS-FREE POTATOES WITH
Eptam®

When you use EPTAM to control weeds in potatoes, you cut down your number of cultivations, reduce weed competition for water, nutrients and sunlight, and harvest a cleaner crop.

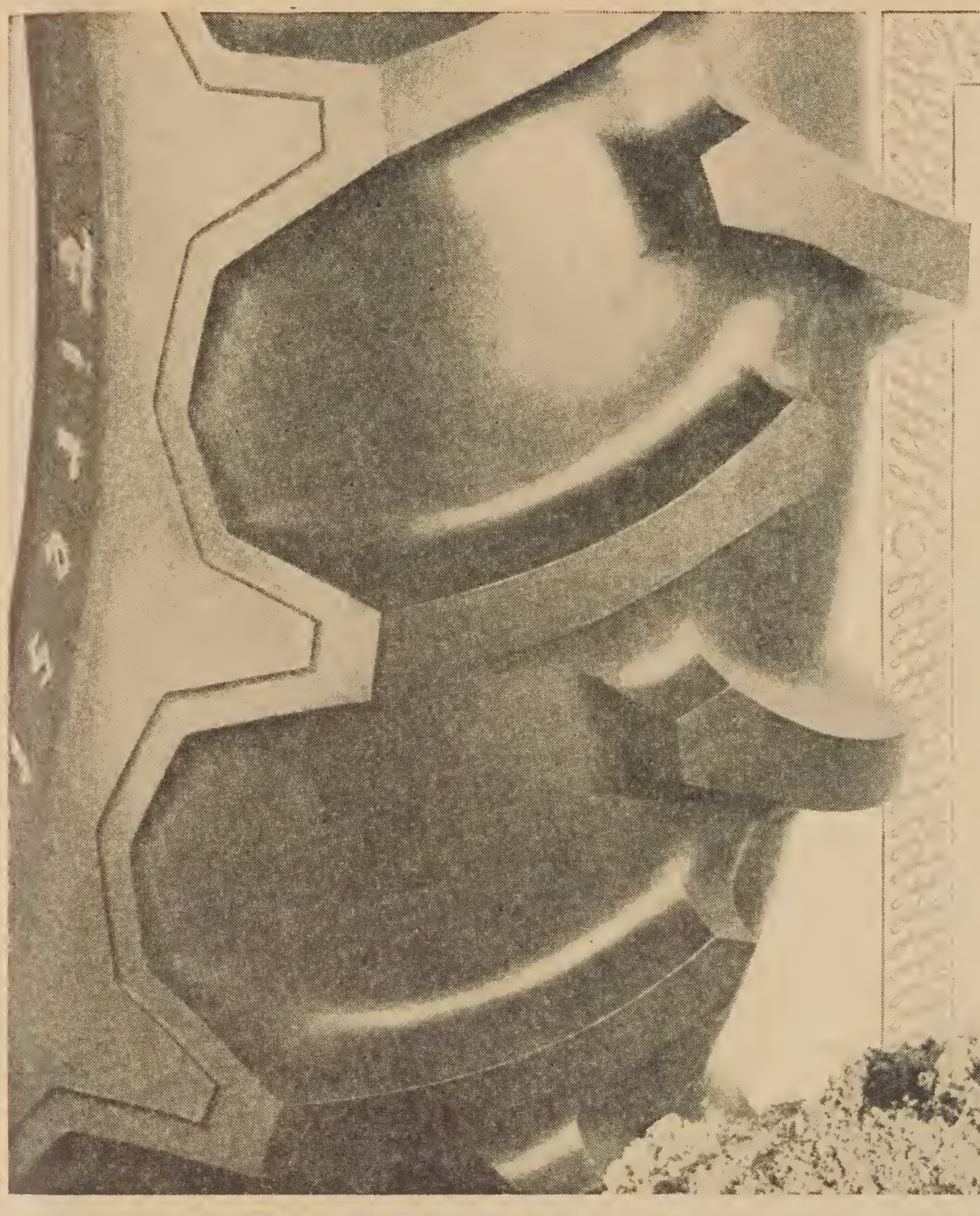
EPTAM is a selective herbicide. It controls nutgrass, annual grasses and many broadleaf weeds in potatoes. Mixed into your soil at planting, at drag-off or at lay-by, EPTAM controls annual weeds as their seeds germinate—*before* they become an expensive problem. Germination of nutgrass tubers is inhibited, and they remain dormant for a period of several weeks.

EPTAM is also recommended for use in several other vegetable, legume and nursery crops. See your dealer, or write for complete information: Stauffer Chemical Company, Agricultural Chemicals Division, 380 Madison Avenue, New York 17, New York.

Stauffer CHEMICALS

®Stauffer's Reg. T.M. for an herbicide.

PROFITS GROW WITH STAUFFER CHEMICALS



...GUARANTEED TO OUTPULL ANY REPLACEMENT TRACTOR TIRE YOU'VE EVER BOUGHT— OR YOUR MONEY BACK!

If, within 60 days of the date of purchase, the new Field & Road tire does not outpull any other replacement rear tractor tire you've ever bought, your Firestone Dealer or Store will (1) refund within 30 days thereafter the amount paid or (2) allow the amount paid in full credit on any other Firestone rear tractor tires. (This traction guarantee does not apply to special-purpose rear tractor tires used in rice and cane farming.) The new Firestone Field and Road Tractor Tire is further guaranteed against defects in workmanship and materials for the life of the original tread. This guarantee provides for a replacement of the same size and type of tire prorated on tread bar wear and based on list prices current at time of adjustment.

NEW FIRESTONE FIELD & ROAD TIRE

At sensationally low prices, you get new Field & Road tires *guaranteed* to outpull any rear tractor tires you've bought.

New-shaped, wide-spaced traction bars, set at a flatter 23° angle, gear these tires to the ground for a tighter "foothold."

Exclusive sidewall action gives you new *total* shoulder-to-shoulder contact of tread and ground. Result: you get all the traction you paid for in your tractor.

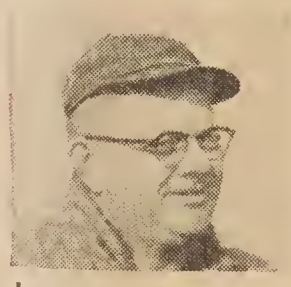
You can expect these tires to *outlast* any you've ever bought before, too. And for four good reasons:

1. This new traction-bar design *ends* excessive scrubbing and road wear. *The bars on the Field & Road do not "cup-out" or wear unevenly.*
2. Tough Firestone sidewall rubber withstands flexing without weakening.
3. Durable Firestone Rubber-XF increases traction bar life.
4. Powerful Shock-Fortified Tyrex® cord body gives you unmatched impact protection.

Get Field & Road tires—the tires that are already proving to be "the shape of tractor tires to come"—at your Firestone Dealer or Store. Use them for 60 days. Convince yourself that these tires outpull any others you've ever put on your tractor. Or get a refund. It's as easy as that to find out how much pull-power is *really* built into your tractor! Buy on convenient farm terms.

® T. M. of Tyrex, Inc., for rayon tire cord.

THESE FARM LEADERS TESTED FIRESTONE'S FIELD & ROAD NATIONWIDE... READ WHAT THEY SAY!



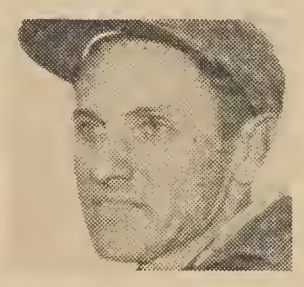
Jesse Meharry, Tolono, Ill.: "I've never used a stronger pulling tire!"



Howard Papen, Wyoming, Del.: "If Firestone makes it, it has to be good!"



W. A. Musik, Richland, Kan.: "They go through where others quit cold!"



Marion Hurd, Ogden, Iowa: "They take me where I couldn't go before!"



Lee Flora, Delphi, Ind.: "It has traction that makes a big difference!"



Vince Kovacevich, Fresno, Calif.: "The traction improvement is terrific!"



Herman Frundt, Guthrie, Okla.: "Never had tires that pull like this!"

Firestone

YOUR SYMBOL OF QUALITY AND SERVICE

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Editorials

By Gordon Conklin

PLUS SIDE OF FAILURE

HAVE YOU GOOFED lately—really fallen flat on your face in terms of accomplishing some purpose? Welcome to a large company!

There are many faces of failure—the small boy trying to fight back tears after losing the game because he dropped the ball, the numbed face of a father whose little girl passed quietly away despite the best medical attention in the world. Failure seems to be eavesdropping as a mother tries to explain to Jimmy and Jane why their Daddy won't be home any more. Even her explanation seems a failure because the kids can't comprehend the riptides of human emotion that can make marriage an empty shell, to be finally crushed in the divorce court.

All is not success along the highways and byways of life. In fact, most of our days are a sort of mixture of winning and losing, each intermingled with the other in most of the results of our efforts.

Some folks believe that failure is in all cases undesirable, but I cannot agree. For losing a race leads us to greater compassion for our fellow runners. Only when a head is bowed in defeat do the eyes suddenly see that our neighbor wears shoes just like ours and we begin to try to imagine ourselves in his shoes—the Golden Rule is born anew within us. The Indians knew this, "Let me judge no man until I have walked in his moccasins two moons."

And failure provides the crucible in which is fashioned the strength to go on in spite of defeat. Abe Lincoln, you'll remember, considered himself a complete loss at the age of 40 —and many of his neighbors agreed with him. The history of this nation—and perhaps the world—would read differently if Abe had "adjusted" to his times and become a brilliantly successful lawyer. Instead, he went plodding on to prove again that the only man who has failed is the one who has quit, that the best advice for a man at the end of his rope is to tie a knot in it and hang on.

Each new dawn hands us a clean scroll upon which to write, in ink composed of blood, sweat, and tears. The tapestry of our lives has here and there a glitter where the golden thread of success has been woven among the other colors. But the richness of the tapestry comes from a combination of colors, one of which is the darkness of defeat.

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I DO IT TOO!

SPEAKING of goofing, yours truly does his share. In the April issue appeared an article by Dr. Sam Guss of Penn State on avoiding cattle disorders that can be caused by forages. Unfortunately, there was no mention of the fact that this article was made available through the courtesy of the Pennsylvania Grassland Council. This recently-formed organization has done a fine job, including making arrangements for a number of excellent articles.

After discovering the error, I ran true to human nature and momentarily tried to assign responsibility to my assistant, to my secretary, or to the plant manager. No soap—'twas I who dropped the ball.

WHAT'S THE SECRET?

IN THE MIDST of a national decline in the per capita consumption of fluid milk, the Boston milk market sounds an encouraging note. Recent figures from Richard Aplin, Market Administrator for the Greater Boston Milk Marketing Area, shows that daily per capita consumption in pints increased from .811 in 1950 to .881 in 1960. His estimate for 1961 is a further increase to .890 pints daily.

Mr. Aplin stated that the uptrend began in 1952, following a vigorous reactivation of the New England Dairy and Food Council Milk Promotion Program. The business of milk promotion has been kicking around the milksheds for a long time—this looks like proof that it can work.

Compared with the dollars spent on advertising of soft drinks and many other substitutes for milk and its products, milk promotion is literally a very small drop in a very big bucket. But if Boston can do it, maybe the rest of the Northeast should "go and do likewise."

THE BIG GUY

WE HEAR comments lately about the "big farmer" and some folks feel that he is a fly in the ointment, causing surpluses and low farm prices. He has lots of capital, it is argued, and is able to have the latest equipment for efficient production. In turn, this is considered unfair to people without sufficient capital.

Everyone who has followed the sport of kings or visited a bookie knows that the best race horses are handicapped by extra weight in an attempt to give every horse an equal chance to enter the winner's circle. In a similar fashion, league bowlers are given a handicap rating so the skillful ones won't bruise the egos of the rest of us when the final score is added up.

Should the principle of artificial handicap be carried over into our economic life? Our forms of taxation "handicap" those with higher incomes, but they are at least defendable on the basis that the more capable a person, the more able he is—and the greater his responsibility—to contribute to the public good.

However, I cannot agree with any proposal to add burdens to the "big farmer" merely to "cut him down to size." Rather, I believe democracy, by definition, promotes a climate in which every person is encouraged to develop his productive capacities to the utmost.

SWING YOUR PARTNER!

IF FARMERS are to accept government as a permanent partner in their business, they should become reconciled to consumer-oriented policies. This is understandable, for the blueprint of a successful national political campaign now lists a few major cities which, if won, assures victory almost independently of how the wind blows in the rest of the country.

"Without a rise in consumer food prices" is a popular phrase connected with federal farm programs, seen even more often than the one running a close second, "to maintain farm income." Houdini himself couldn't have done both of these things simultaneously in a free enterprise system. It can only be done by paying farmers tax dollars to compensate for low food prices. This supposedly makes everyone happy, most of all the man who "giveth and taketh away." Personally, I'm convinced that food is the best bargain we buy in this country, and that an increase in food prices is overdue.

Farmers must decide whether their—or their nation's—long-run interests are best served by a legislated "equity of income." Painful adjustments must be made to bring greater farm prosperity within a system that is basically one of free enterprise. In the long run, however, I'm sure farmers will be better off to retain control of their own destiny, even though complete "freedom" to do exactly as they please may have to be given up to attain organizational bargaining power.

SPRING TONIC

By Vada F. Carlson

I'll take a pinch of warm brown earth,
Mix it well with robins' mirth,
Stir it with a Maytime breeze
Strained through budding hawthorne trees,
Moisten it with crystal dew
Dripping from a hedge of yew,
Add one ruby-throated "hummer,"
Then I'll be all set for summer.

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AA's Farm Dollar Guide

NINE NORTHEASTERN DAIRY GROUPS have asked USDA for an emergency hearing to bring stability to the New York-New Jersey milk marketing area.

Secretary Freeman proposes legislation to pay dairymen who voluntarily reduce the milk they market in '62. They would get $2.50 per cwt. for reducing production by 7½% to a maximum of 25%, or 30,000 lbs.-whichever was greater.

Price supports on dairy products would be restored to the former level of $3.40. Dairymen who inceased production would be penalized $2.50 per cwt. on the surplus. Bases would be transferable. Two-thirds of dairymen would have to approve in a referendum. Producers under federal order could credit all reductions against surplus class milk so they would retain their present share of the Class I market.

INCREASE HAY CROPS by applying 300 pounds per acre of 0-20-20 right after first cutting of legumes. On first year grass apply 50 pounds of nitrogen now; for older grass meadows 500 pounds of 10-10-10 will make 'em jump -and pay off.

FERTILIZER is one of the best bargains around. Compared with most everything else farmers buy, fertilizer costs have increased least over the past 20 years.

SAVE MONEY by planting round-kernel corn seed, usually at least $2 per bushel cheaper than flat grades. Varietal characteristics will be identical; most machinery companies and many seedsmen have special planter plates required for this kernel size.

A BILL IN CONGRESS would require co-ops to withhold a 20% tax from all patronage dividends, whether paid in cash or not.

MINIMUM TILLAGE, such as wheel track planting of corn, simplifies weed control and cuts costs.

TOTAL U. S. CROP ACREAGE in 1962 is predicted as down 1% from '61. CORN acreage expected to be up 3%; SOYBEANS up 2%; but total FEED GRAIN acres a fraction of 1% below.

WINTER WHEAT acreage uncertain until growers decide how much to plow up. New York DRY BEAN growers plan 12% more acres ('61 acreage was smallest since '28); U. S. acreage of dry beans up 3%.

SALE OF RAW MILK (except where prohibited by local health regulations) will not be banned in New York State before July 1, 1963.

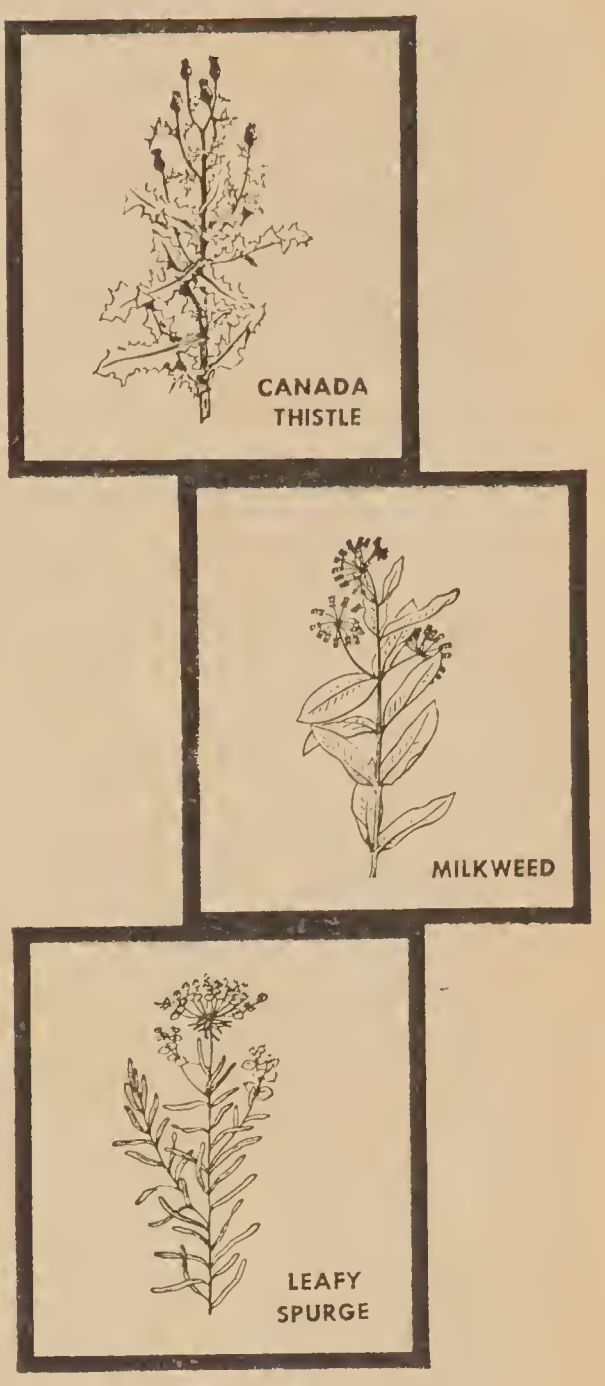
The Song of the Lazy Farmer



I HOPE when it's my time to die I'm full of Jane Mirandy's pie, 'cause then at least I could depart with joyous, overflowing heart. I doubt that there has ever been, and isn't apt to be again, a pie-pan artist half as great as in my talent-loaded mate. To guard her art with secrecy, she has no written recipe; yet with a blindfold on I know that she can mix up perfect dough and wind up ev'ry single time with flaky pie crust so sublime that even Khrushchev, with one bite, would lose all interest in a fight.

Just think what could be done if we arranged to have Mirandy be on hand for ev'ry summit talk, and when Nikita tried to squawk she'd serve some pie to calm him down and make him smile instead of frown. With elderberries in his paunch, that guy would never want to launch into a tirade 'bout Berlin; whenever he had taken in a slab of peach or choc'late cream, he couldn't muster up a scream. At last we'd have a peaceful Red, 'cause otherwise I'll bet his head would swell and start to ache like sin, thanks to Mirandy's rolling pin.

8 PRACTICAL REASONS WHY YOU SHOULD USE WEEDAZOL TO ERADICATE THESE PERENNIAL WEEDS!



WEEDAZOL is a specific chemical—developed especially for successful eradication of hard-to-kill perennial weeds such as Canada thistle, whitetop, leafy spurge, milkweed, sow thistle, etc.

WEEDAZOL is a "translocator"—is absorbed through the leaves, moves almost without restriction throughout stems and roots to accumulate in the underground storage roots—then proceeds to provide killing action even as new shoots are formed!

WEEDAZOL is economical—for only 25 cents you can eliminate a solid stand of Canada thistle in an area 2 rods long by 1 rod wide, even if thistle is choking every inch of the land treated!

WEEDAZOL is safe for the soil—is not a soil sterilant, will not form harmful soil residues that will affect the land.

WEEDAZOL is safe to handle—will not create fire hazards, corrode spray equipment; is clean, safe and easy to use.

WEEDAZOL outdates previous methods—has been proven far more effective in eradicating hard-to-kill perennials than either cultivating techniques or ordinary 2,4-D formulas.

WEEDAZOL is the original Amitrol weedkiller—discovered and developed by Amchem Products, Inc., the originators of 2,4-D, 2,4,5-T and other basic farm weed killers.

CAN YOU AFFORD NOT TO USE WEEDAZOL?—When you consider the waste of time, labor and valuable land involved consider what WEEDAZOL can do for you. For freedom from perennial weed problems and a more productive farm operation, try WEEDAZOL—you'll appreciate the result!

For those of you who prefer a liquid. New! AMITROL-T, liquid amitrole in its newest, most effective form. More killing action on quackgrass, horsetail rush, cattails, milkweed—equal to WEEDAZOL and it's a liquid! AMITROL-T or WEEDAZOL—you'll appreciate the weed-killing results!

AMCHEM **WEEDAZOL**

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AMCHEM PRODUCTS, INC. (Formerly American Chemical Paint Co.)
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Put your forage-feeding operations

John Deere *gives you*
"assembly line" methods
to reduce handling . . .
save time . . . cut costs

Your farm, like any other successful business, must show annual improvement through better management if it's going to stay profitable. That's why John Deere continues to design new equipment and improve methods to put greater efficiency into forage-feeding operations.

Good Management Pays Off . . .

For peak efficiency, you must make the best use of time, labor, and equipment. How? By letting your dealer systemize your operations with John Deere capacity-matched forage equipment. What's more, he can supply service and parts when you need them. He also has a credit plan which puts modern machines on your farm this season.

Whether yours is a family-sized farm or a large, forage-growing spread, John Deere puts silage production on an assembly line from field to storage with a complete line of equipment. This line is so flexible that it can be tailored to your fields, crop conditions, acreage, and tractor power.

When your forage equipment is *all* John Deere, you can bank on double-quick service on *every* machine. Your John Deere dealer has the parts . . . his factory-trained mechanics have the experience.

And speaking of parts—Genuine John Deere parts are identical to the originals. This means they *fit* and *wear* like the originals.

Keep in Step with the Times . . .

Plan now to put your silage-making operations on an assembly line. Whether you want the whole package or prefer to buy equipment a piece at a time, the John Deere Credit Plan makes ownership easy. Down payments are made in cash or trade. Installments are arranged to coincide with your monthly or seasonal income.

These are just some of the reasons why it pays to go John Deere. See your dealer soon and put your forage feeding operations on a sound business basis!

JOHN DEERE
3300 RIVER DRIVE, MOLINE, ILLINOIS

JOHN DEERE
125 YEARS

JOHN DEERE design,
dependability,
and dealers
MAKE THE DIFFERENCE



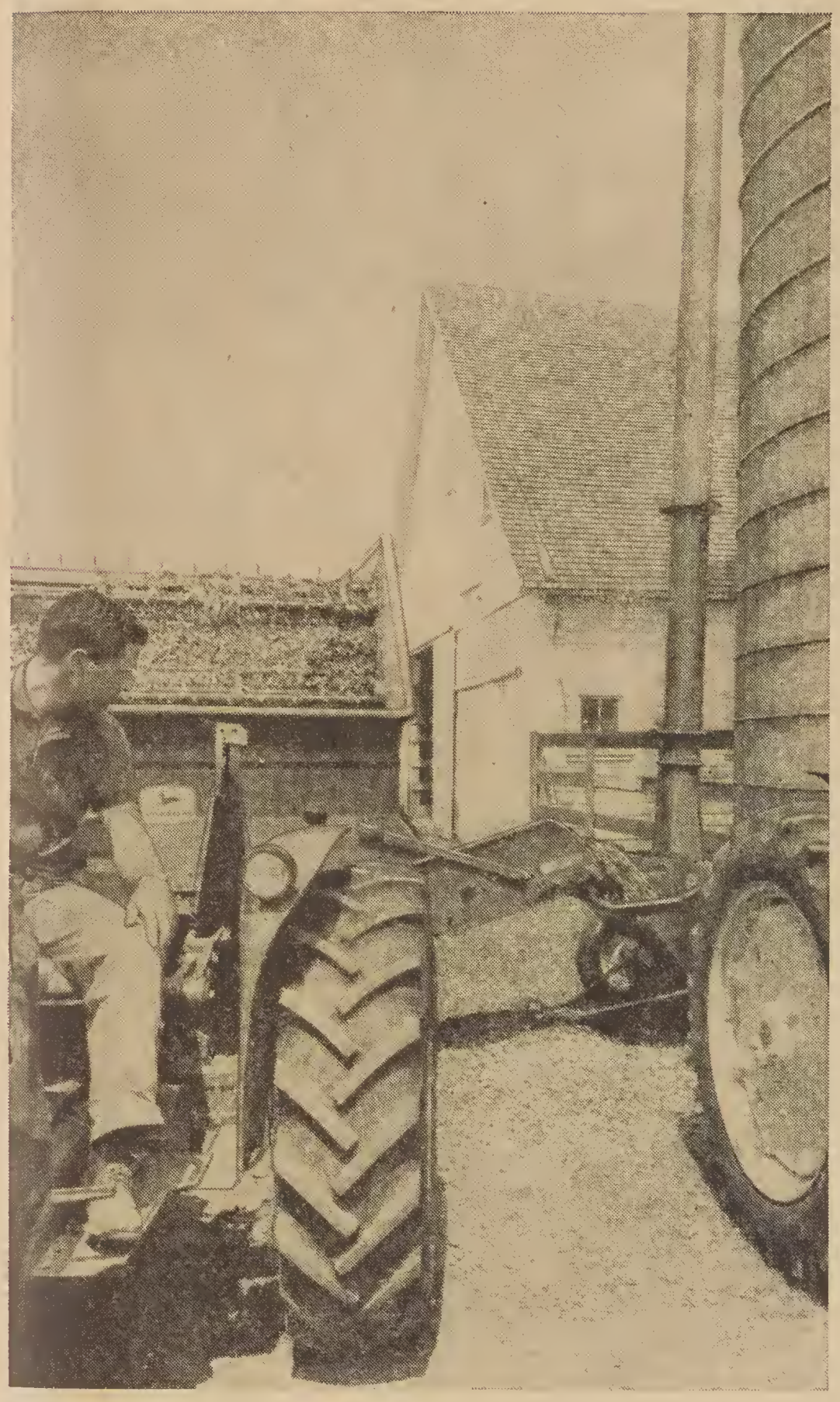
Forage Harvesters

John Deere Forage Harvesters feature a single casting which holds the flywheel cutterhead and stationary knife. With this single-casting mounting, the *knives can't get out of register.* John Deere Forage Harvesters also feature adjustable axle spindles for better row-crop chopping. With the axles in their low setting the row-crop unit's knives are kept high out of the dirt . . . yet the gathering points can be lowered to a greater degree for picking up downed stalks. A wide selection of crop-gathering units is available for these forage harvesters.



2 Forage Harvesters—Low-cost PTO model for average acreages; a heavy-duty, PTO or engine-driven model for large acreages.

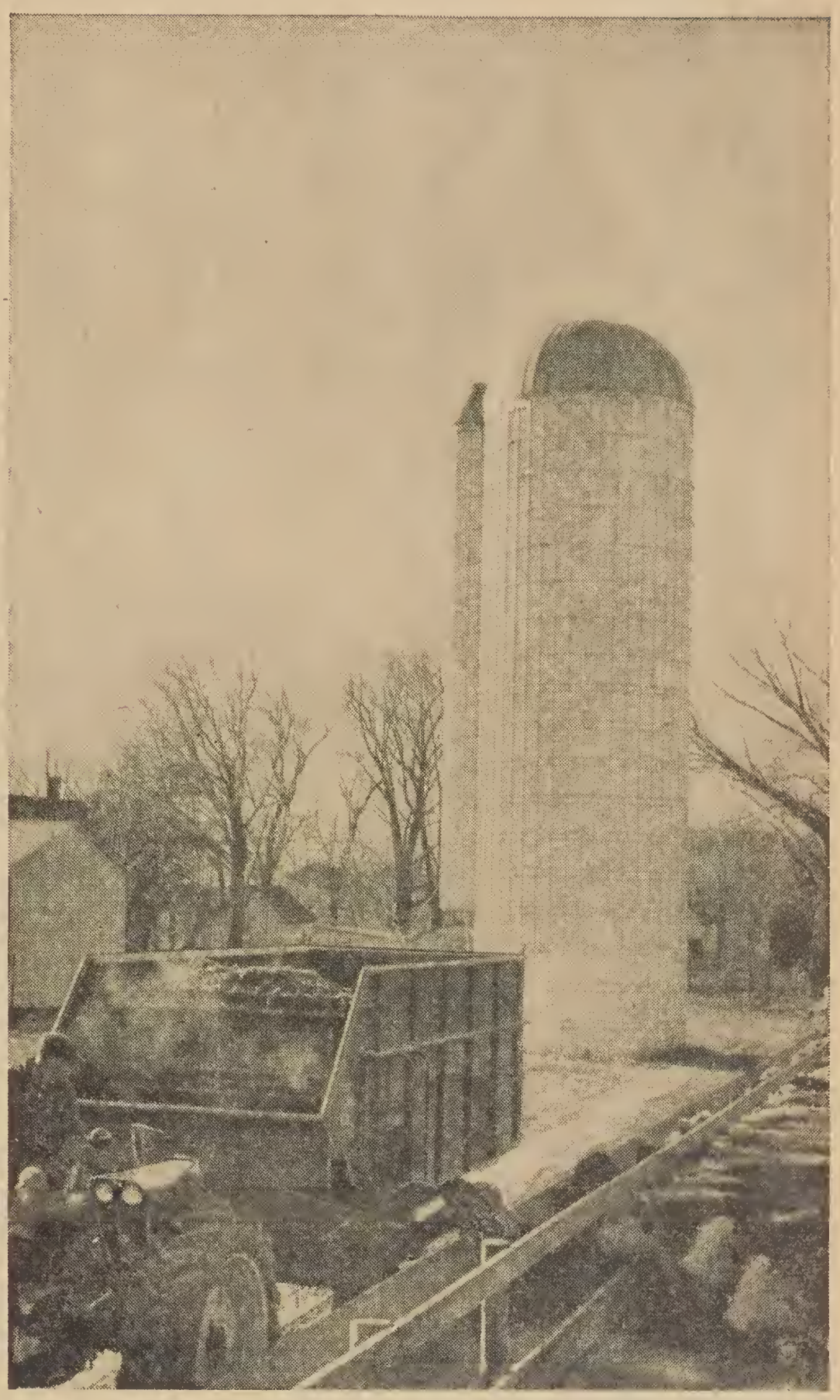
on a sound business basis . . .



Blowers

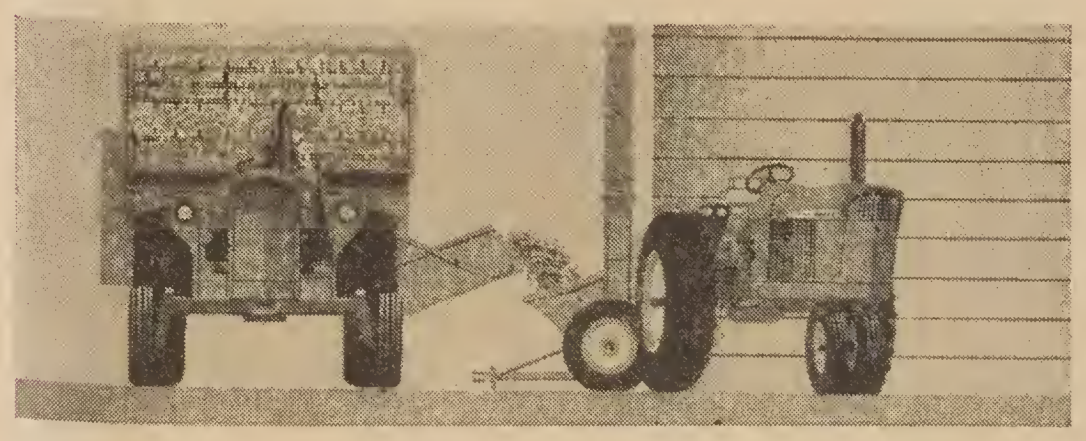
Drive in . . . unload . . . take off—storing silage is just that simple when a John Deere Hopper Blower is teamed up with a self-unloading, side-delivery wagon. The blower whisks material to the top of the highest silo as fast as the wagon dishes it out.

The John Deere Belt-Conveyor Blower is basically the same as the Hopper Blower except that it has a long, wide, deep retractable conveyor which carries material to the fan. There aren't any holes to dig or wheels to remove when setting up either John Deere Blower because the wheels are retractable.



Chuck Wagons

Bigger-capacity, self-unloading John Deere 112 and 115 Chuck Wagons pay off in the feedlot . . . in the field . . . at the blower . . . in trench and bunker silos. They switch from side to rear unloading, or vice versa, in seconds. Five unloading speeds are provided for both side and rear delivery to match capacity to the job. When unloading from the side, self-cleaning beaters mix supplements into feed "on the go," giving every cow a balanced ration. What's more, a Chuck Wagon can be mounted on wagon gear or truck bed to meet your particular operations.



2 Forage Blowers—A hopper type for use with self-unloading, side-delivery wagons, and a belt-conveyor type.

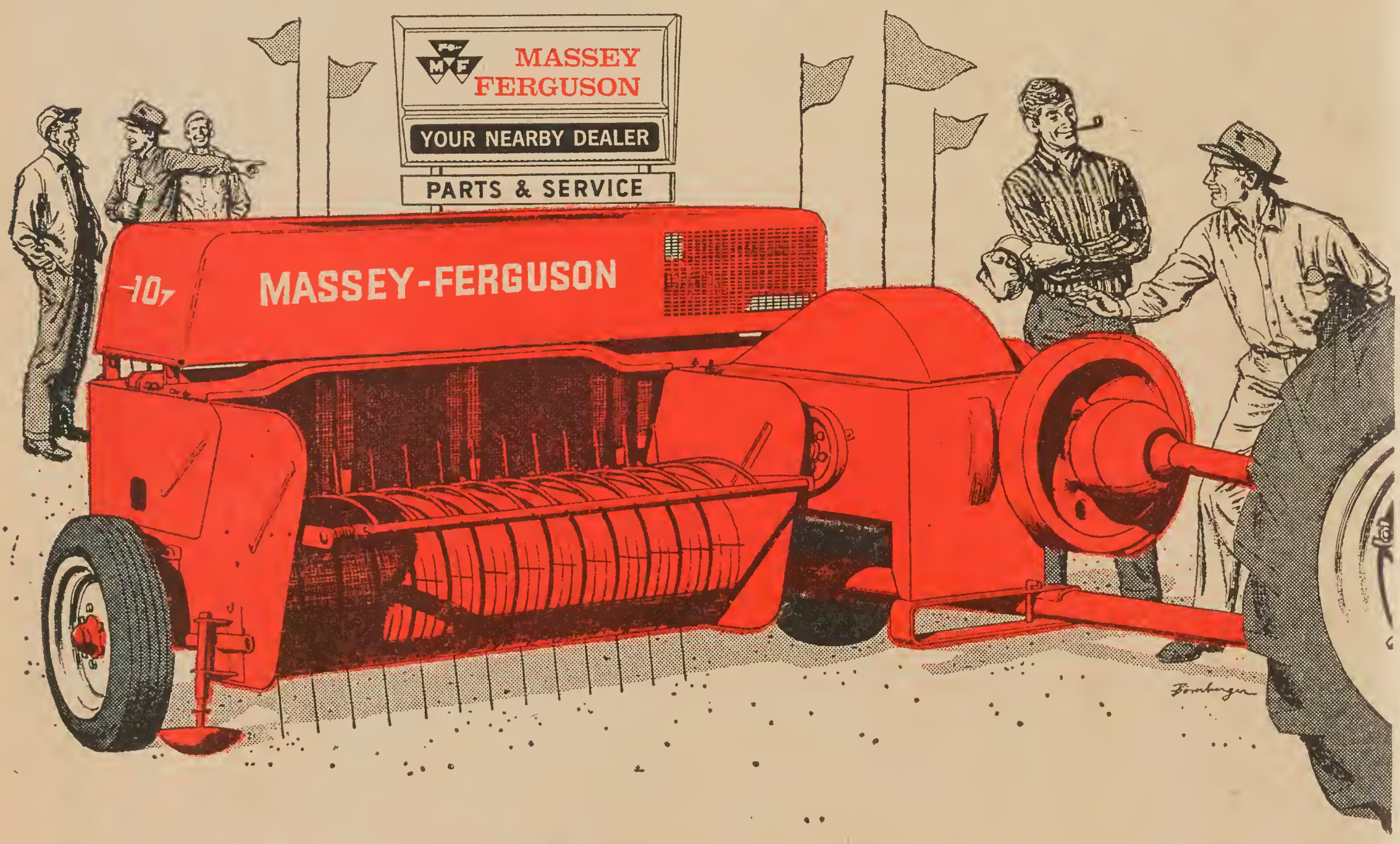


2 Chuck Wagons—Capacities of 190 and 237 bushels without side extensions; 295 and 372 bushels with side extensions.

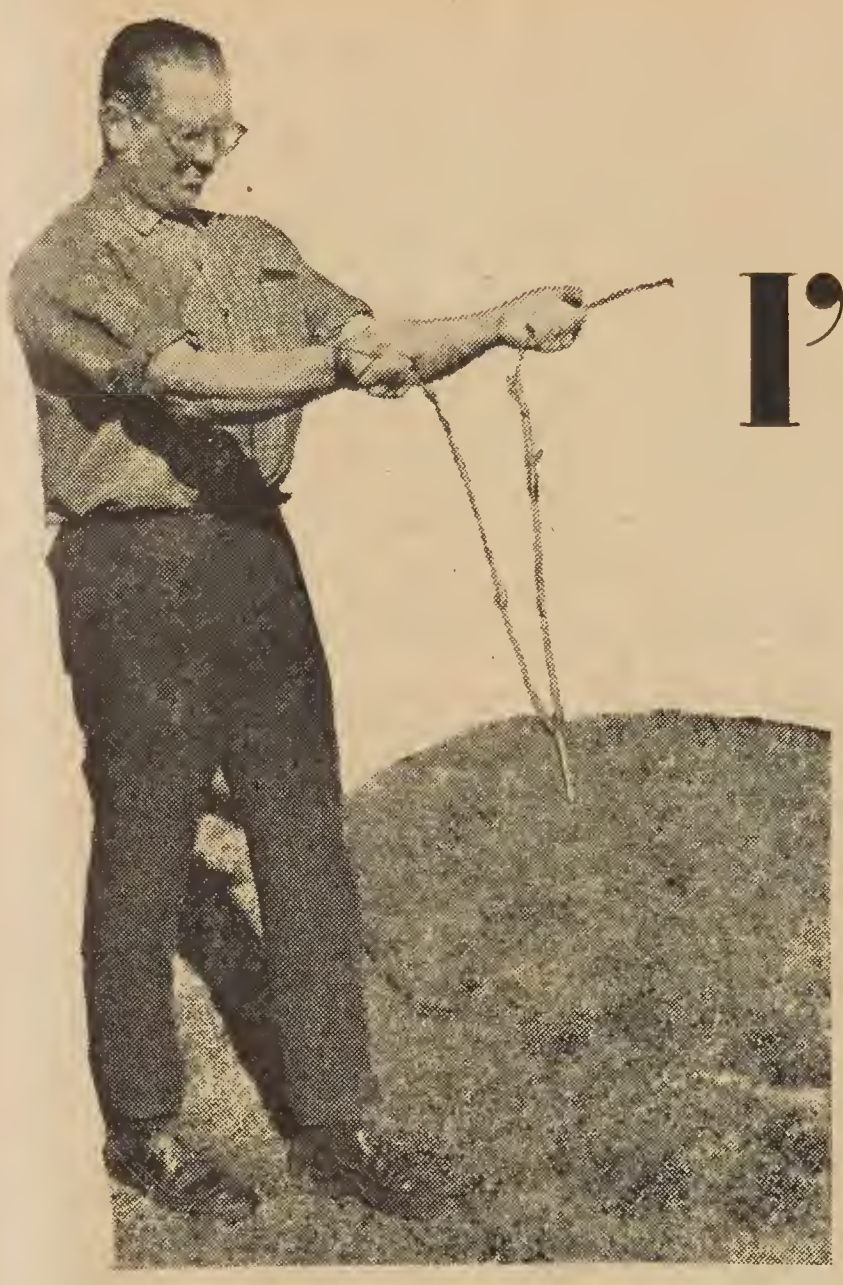
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I'm A Dowser

By Norman B. Evans

Norman Evans in action with a forked stick.

MY FRIEND looked at me in amazement and said, "You mean you're serious when you tell me that stick will find water?" You see, I'm a dowser, and this is the kind of reaction that I'm getting used to hearing. My forked stick seems to get into the middle of many arguments but not everybody thinks I'm a crackpot. In fact, there is a revival of this "ancient art" taking place in America today. Professional dowsers have been seen at least twice in recent months on nation-wide television hookups, and reference has been made to "water witching" in everything from "Pogo" to science magazines.

Correct Name

Dowsing is the correct name for the use of a forked stick or other implement to locate underground water. "Divining" and "water witching" are terms commonly used, but since dowsers have been known who were far from divine, and I'm sure that I can't ride a broomstick, I'll stick with "dowsing."

As far as written records go, dowsing was developed first in Germany. A sixteenth century writer described how the forked stick was then used to locate metal ores and minerals. Later on it became widely used to locate water wells. The use of the stick is accepted very widely in Europe today with none of the pseudo-scientific abhorrence that we sometimes find here. Ever since that unfortunate episode in Salem, anything with the word "witch" in it has been taboo for research in America.

Actually, more people are interested in dowsing than would admit to it. I am a part-time student at Cornell University and I really enjoy getting anyone to listen and watch. Some professors have been very helpful to me in my research, but I'll never forget how one ran when someone pulled out a camera!

The crowds really grow when I go out on the Agricultural College grounds to demonstrate my stick. At first, most everybody laughs—but about the time a stick breaks in my hand (I used to be a hand milker with a firm grip on things) they begin to take notice. Then they all want to try it. Occasionally there is a scream from a pretty co-ed, "It moved!"—or a mutter from a scowling lad, "I still don't believe it, it must be me!"

A senior in the College of Electrical Engineering took a forked stick with him to a laboratory class, after finding out that he could dowse. His instructor thought he was a little "touched" until he got a reaction in one corner of the room. Deciding he wanted to see more, he led him out into the hall where he ran head on into the College dean, showing around a group of prospective freshmen. After looking at each other with shocked expressions, both groups continued on in stunned silence.

The traditional tool of the dowser is the forked stick or "dowsing rod." Some recommend apple, some peach, some willow, but I have used most everything. I use new-growth maple when available as it does not break easily, is sensitive, and is easy on the hands. I have just received a whalebone rod from England which seems to work very well and is short enough to fit in my coat pocket. This will be handy for the bull-session circuit.

City water departments and highway crews often use two bent wires, called angle-rods, to locate lost pipes and culverts. They are cheaply made from welding rod and copper tubing and work with about 50% of those who try them. Held parellel to the ground surface, they will either cross or swing apart, depending on the individual, when the pipe is crossed. They also work over water.

I am also able to use a long bar, such as a crowbar, or a soil auger. I hold this in my right hand, balancing it at its point of balance over my thumb and middle finger. The point will dip down as I approach a reaction spot.

One day I was demonstrating the angle-rods in the Psychology Department at Cornell and the professor asked me to find a spot in a hallway where he had just had a reaction with the rods. I picked up his umbrella, and balancing it like I would a bar, proceeded down the hall until it tipped down—same spot, and a puzzled professor.

Uses Coat Hanger

Sometimes, when doubters hate to be convinced, I break down and use a wire coat hanger. This is sometimes painful as I have received blood blisters on my fingers as the hanger twisted down, but it is a convincer. I merely straighten out the hook and squeeze the triangle together into a Y and grip as I would a forked stick. I did this once on the fifth floor of the State Office Building in Syracuse and the wires unwrapped at the point while it twisted in my hands. I have one correspondent who uses a wooden coat hanger as a dowsing rod, but it will not work for me.

Many European dowsers use a pendulum in this work. I have played around with them for some time, but they are bothered by air currents outside, and in addition seem very prone to auto-suggestion. It is quite a fascinating thing to use one inside, however, and I shall continue to work with them.

I have often been asked how I came to be a dowser. My usual reply to Cornell students or professors is that I come from the country, where certain things have not yet been educated out of us.

I found out years ago, in the natural course of rural events, that I was a dowser, but I never took it very seriously until I got a very strong reaction at an old lumber pile, while dowsing near an old house. Under the pile we found a dug well full of water and I knew then that there really was something to it.

It remained for my return to Cornell to get me really going. While studying about underground water in a geology class, I put on a little demonstration for my "lab" section and a few days later Professor Lawrence Hamilton let me work before 140 students in his Resource Conservation class. Professor Hamilton has remained very interested in dowsing although he might hedge a bit if asked about it professionally.

After one of his classes, we went out to a location where he knew a steam pipe was buried. When we got there, I asked to be blindfolded, since I was afraid that if I found the pipe, the gallery might claim that I located it by the difference in the way the grass grew over the pipe. The only forked sticks available that day were box elder which breaks very easily. Every time I crossed the pipe the stick broke and I had to take a shorter grip. After completely wrecking two forked sticks and switching to my wire coat hanger until my hands were too sore to continue, I stopped and found I had never missed. Professor Hamilton went back to his office, shaking his head and almost wishing he had not come.

I have given many demonstrations at Cornell, been in the middle of a hundred bull sessions, conducted informal seminars, and given formal speeches on dowsing. However, these do not give the satisfaction that comes from a happy person writing to tell me that he has a successful well on a location that I had previously dowsed, especially if it was found in dry country with many unsuccessful wells in the neighborhood.

Dowsers are people, and people are not infallible. Dowsing failures do occur, not because the stick is unreliable, but because people do not know how to interpret a dowsing reaction.

In the first place, water is not the only thing that causes a dowsing reaction—reactions can occur over metal, pipes and other things. Personal sensitivities also vary, with some getting reactions over seepage water and others getting no reaction from any but flowing water. Cavities cause a reaction in some people, even woodchuck holes. Sometimes faults in

(Continued on Page 15)

About the Author

Norman Evans, a dairyman near Georgetown, New York, discusses here a subject of great controversy—dowsing, sometimes called "water witching." Son of H. J. ("Red") Evans, Norman operates a 375 acre farm on which is a herd of 50 milkers. He attends Cornell University on a part-time basis, is due to receive his degree two years hence.

Community activities have included a stint as Assistant Scout Cubmaster and he is past Master of the local Masonic Lodge. He is active in the Georgetown Baptist Church, sings in its choir, serves as a deacon, and is a licensed lay preacher. The Evans have three children, whose ages are 13, 12, and 10.

Personal Farm Experience

Loose Housing

We use a U-shaped pen stable facing to the southeast, with holding and feeding areas in one wing, a loafing area in the opposite wing, and the milking parlor and milkhouse forming the base of the U. Our 87 cows are milked in an 18 stall herringbone, 9 on a side. Normally, two men milk using 9 units. However, one can do the job, using 5 units.

We like the parlor—it's efficient, gives us a chance to look over the cows, and gives us top quality milk in terms of cleanliness and bacteria count. One thing we recommend is that if a vet is going to have to hurt a cow, don't put her in the milking parlor for treatment. She'll be "leary" of the place for a long time. We have a few stalls in the holding area where our vet takes blood samples. — *Basil Gillam, Clifton Springs, N. Y.*

Forage Program

We provide all the roughages for 50 head of cattle, including 34 milkers, from our 70 acre farm plus 25 rented acres. In 1961, we cut 43 acres of hay, had 4,000 bales (average 50 lbs. each) of first cutting and 2,000 of second cutting. First cutting was all in the barn on July 4th; we started haying June 1. During the last few years, we've started haying a little earlier each year.



Clifford White

Ten acres of corn last year filled two 12 x 30 silos and left a few rows besides for sale to a neighbor. A silo unloader is moved from one silo to the other.

We hire both silo filling and combining done, believing it's cheaper for a smaller business to hire a man and his equipment rather than to own equipment and try to hire help to operate it for short periods. We think we can handle 35 cows without hired help; maybe a dumping station will be the next equipment purchased on our farm. The children help out—Linda, 19 (now a student at Cortland State Teachers College); David, 18; Patricia, 15; Mary, 8; and someday Lynette, 1½, will take her turn. Linda drove the tractor while baling during the 1961 haying season.

Getting back to hay, we seed with Narragansett alfalfa and Climax timothy. Meadows are topdressed with 200 pounds of 0-20-20 after the second cutting. Pasture land last year was topdressed with ammonium nitrate; it really made the grass jump! The pH level on the farm is between 6 and 7; an average of 30 tons of lime a year has been applied on the farm since we began operating it in 1944.

The previous owner of our farm raised spinach on one small field and put fertilizer there very heavily. We noticed that seedings lasted particularly long on this field—long after they were gone on other fields. This was convincing proof about some bonuses of good fertilization. It looks to us as though, with adequate fertilization, we should be able to provide roughage for 50 cows plus young cattle on the acreage we now own and rent.

Our herd average is 13,253 pounds of milk, even with 20 first and second calf heifers in the milking lineup. DHIC records show cows are holding up in production longer than in years past—we think largely due to better quality hay. We're sold on early cutting. Cows are fed all the hay they can eat.

We were members of the Extension Service-sponsored Chenango County Farm and Home Management group for three years, and found it very helpful. That experience was what started us to lower our equipment costs by hiring custom work, and also convinced us we needed a bigger herd, which we now have. Business analysis pointed out the high costs of owning the field chopper and corn picker we once had. It's helpful to have some figures for comparing our business with others in our own area. —*Clifford and Shirley White, Bainbridge, N. Y.*

Licked Mastitis

In past years, we've had mastitis flareups off and on in our herd of 42 cows. We finally decided to take part in the New York State Mastitis Control Program to set up a system to better control the problem.

Our veterinarian, cooperating with representatives of the Program, went after "Strep ag" with antibiotics and, after four months, this bad actor didn't show up in milk tests anymore. We began using a separate paper towel, dipped in a strong disinfectant solution, for

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washing the udder of each cow. Teat cups are dipped in a chlorine solution immediately after taking them off each cow.

Cost of participation in the Mastitis Control Program, including veterinarian fees and antibiotics, has run to somewhere around $100. Already, this amount has been repaid many times by extra milk, especially when considering the amount lost by withholding milk 72 hours after udder treatment with antibiotics.

We use two sets of inflations, alternating them weekly. The set not being used is put in a cold lye solution long enough to thoroughly clean them up and then stored for use the next week.

In our opinion, the real reason why some dairymen don't like the Mastitis Control Program is that they don't follow advice to the letter and so don't really get at the root of the problem. We've found it very helpful.

By the way, one item of advice for mastitis control is to use plenty of bedding. We don't have much straw, so we use what we have for calves in box stalls. For cows, we use poor quality hay that has been spoiled by rain or cut late. This hay is baled, then a batch of it is run through an ensilage cutter every three weeks. Manure containing hay could cause a weed problem when spread on fields, of course, but we keep weeds down with 2,4-D sprays on corn and oats.—*Murray and Warren Wigsten, Pleasant Valley, N. Y.*

Pens and Stanchions

We stanchion 60 cows in a conventional barn, have 40 more milkers in pole barn loose housing. There are advantages and disadvantages to both systems.

When it comes to selling breeding stock, we think they sell better in stanchions. Pen stabling, though, seems to keep cows healthy; we haven't had a sick cow all winter among those cows, even though they're much more exposed to weather than those in the barn. However, if I were to run a herd all in loose housing, I'd still want a warm barn in which to start calves, and with about 8 stanchions per hundred cows for handling animals temporarily needing individual attention.

We prefer having cows freshen in the pole barn where they won't have the injuries sometimes occurring on concrete. If a cow gets milk fever at calving time, for instance, she falls and is susceptible to hip or leg injury.

We use a 12-stall herringbone milking parlor for the entire herd and have found one of its advantages is that we can't run milker pails over. Previous to the parlor, some of our cows would fill the milker pail—and then some. I don't need to tell a dairyman the milking machine problems connected with this situation.

Milk runs from our parlor to a receiving jar by gravity—the "low-line" system. From the receiving jar, milk is pumped into the bulk tank.

Our holding area is big enough for 50 cows; doors to the parlor are operated by two-way vacuum door openers, working off the milker vacuum line. The pit is warmed by forced air through hot water radiators.—*Henry Faryna, Perry, N. Y.*

Sidelines Pay

We feel, particularly where a local market is available, that a sideline makes a good addition to the income of a dairy farmer. We have two sidelines: about 6 acres of potatoes and 12 to 15 acres of sweet corn.

The potatoes are sold to people who come to the farm for them, as well as to some nearby schools for school lunches. Some of my potato-growing friends on Long Island are always asking me how I am able to get more than twice the wholesale price in their area. About the same situation goes for sweet corn. Certainly no one could afford to raise a small acreage of either of these crops—or probably of any other cash crop — and sell it on a wholesale market.—*Clayton White, Stow, N. Y.*

Dates To Remember

May 10-12—54th Annual Convention of American Feed Manufacturers Association, Conrad Hilton Hotel, Chicago, Illinois.

May 12 — Annual Beef Producers' Day, Ratcliffe Hicks Arena, University of Connecticut, Storrs.

May 16 — Annual Meeting of the American Guernsey Cattle Club, Hotel Monteleone, New Orleans, La.

May 17-19 — State FFA Convention, Lowville Central School, Lowville, N. Y.

May 19 — Sheep Producers' Day, University of Connecticut, Storrs.

May 20-22 — Annual meeting of New York State Milk Distributors, Inc., Sheraton Ten Eyck Hotel, Albany, N. Y.

May 21 — Guernsey Sale, Woodacres, N. J.

May 21—Annual Meeting of New York Dairy Boosters, Inc., Sheraton Ten Eyck Hotel, Albany, N. Y.





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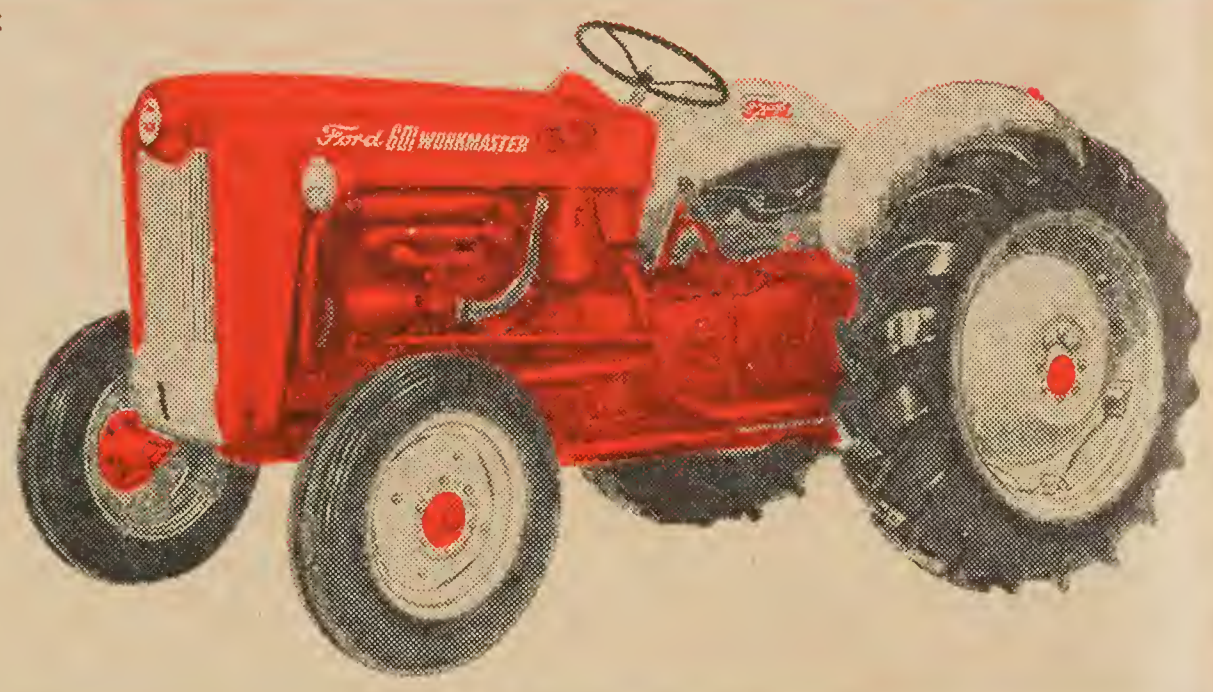
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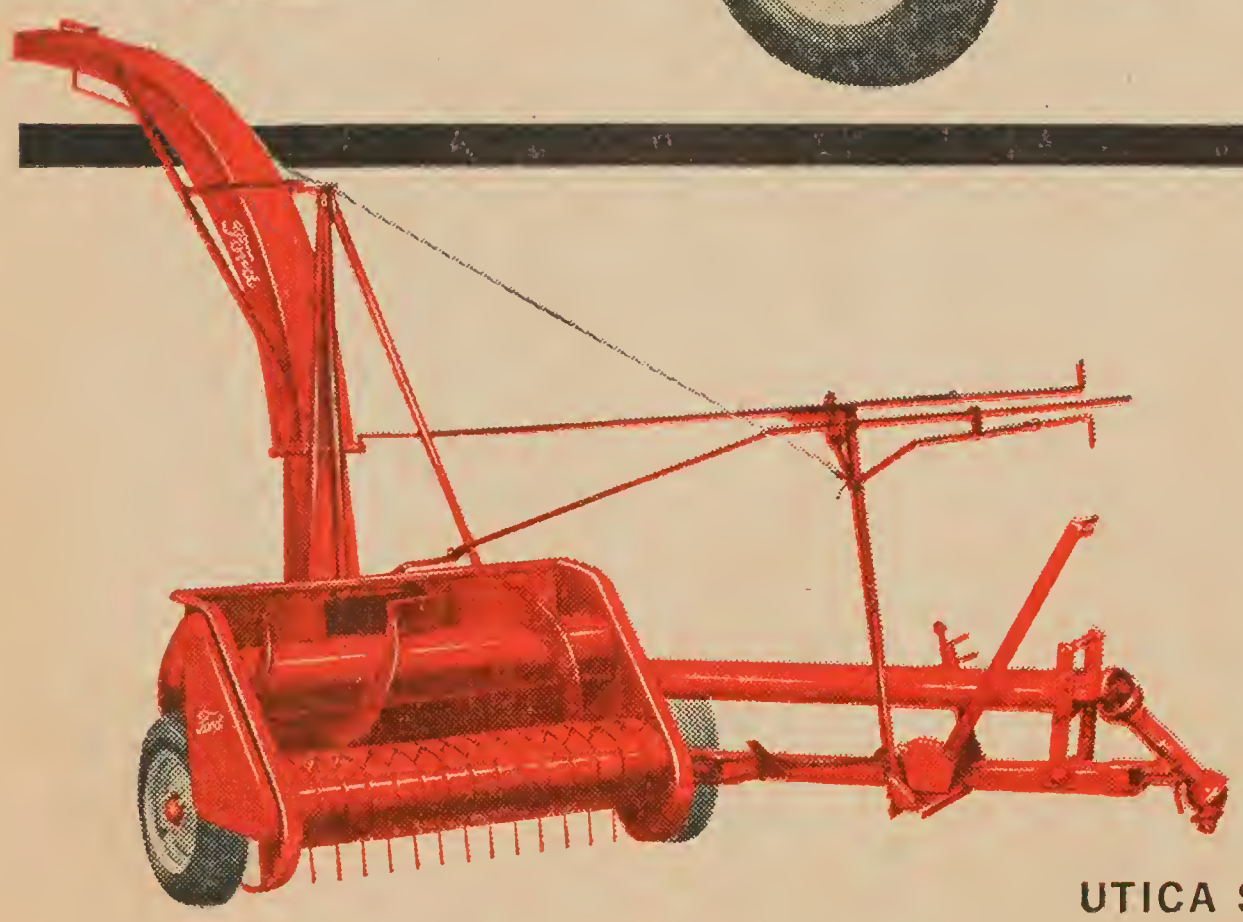




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Guidelines For Poultrymen



By C. E. Ostrander*

DURING the past few years there has been a great deal of discussion about types of houses, systems of housing layers, and type and amount of equipment used. There is no one best house, system, or set of equipment, but there are standards that have been time-tested and proven. You may vary from these and be successful, but you can't afford to be running an experiment station. These guidelines come from years of research and practice.

Housing

Generally speaking, frame houses one or two stories high and 36' to 48' wide are most suitable for floor operations—cage houses 30' to 32' wide are most practical. The house should be well insulated with two to three inch thick blankets (or their equivalents) in the sidewalls, and three to four inches in the ceiling. Blankets with no vapor barrier are cheaper; then put a good vapor barrier on the inside of the house, next to the blankets. This prevents moisture from entering the insulation, where it will condense and cause all kinds of problems. The vapor barrier must be protected with some sort of rigid material.

Incidentally, we now feel that insulation is just as important — or perhaps even more so — to keep heat out during the summer as to keep it in during the winter. This is especially so in windowless houses.

If windows are used, don't have window area in excess of 4 percent of the floor area. Glass is a poor insulator, and diffused light from windows may encourage cannibalism. We can control environment more accurately in windowless houses.

Normally we prefer a trussed rafter clear span house. The house should cost in the range of $1 to $2 per square foot, including a concrete floor. Of course, large houses are more economical to build than small ones.

Ventilation

Forced-draft ventilation is a must to control environment; an exhaust system is cheaper to install and operate than a pressure system. A good fan with a guaranteed rating based on ⅛" static pressure should be used—this means it will work even against wind. Fans should be installed to deliver a maximum of four cubic feet per minute (cfm) per five pound bird, and two or more fans should be used unless there is a multiple volume control. Thermostats should be used to control the volume.

Air intakes should consist of a one inch slot all the way around the house, at the eaves—this intake slot should not go within 8 feet of the fan. Plans for a controlled inlet are available by writing to the Poultry Department, Cornell University, Ithaca, N. Y. If possible, keep the inside of the house about 40° F, but below 85° F.

Lights

For conventional houses, use one 40-watt incandescent bulb for every 200 square feet of floor space. They should be 7 feet from the floor and the bulbs should be kept clean. In cage houses, lights should be located on 10 to 12 foot centers in the center of the wall alleys. Here 25-watt bulbs—and sometimes 15-watt bulbs —provide all the intensity needed. The lights should be on a time clock to provide a 14-hour day—no dimmers are needed.

Equipment

Four to six inches of feeding area is required for each bird. Feeders should be located so no bird can be more than 15 feet from feed at any time. Hoppers should be at least four inches deep and five to six inches wide, with a lip at the top; keep 'em not over one-half full to prevent waste.

Mechanical feeders are preferred, because they attract the birds when they turn on—and they save labor. Remember, though, that you should have 1,000 layers economically to justify a mechanical feeder. It should move all the feed—most of them do. Feeder troughs suspended from the ceiling have some advantages; they can be raised when cleaning, and are easily adjusted as litter is added.

Location of water fountains is more important than number—if the location is correct, you will have enough. Again, layers should never be more than 10 to 15 feet away from clean water; wide, deep troughs are recommended. As with feeding, fountains suspended from the ceiling are easy to level and can be raised out of the way when not in use.

One nest should be provided for every five layers. Roll-away nests are satisfactory if you will take the time to train the birds to use them. If birds have to go over too many obstacles to get to the nest the incidence of floor eggs will be greater. Nests should not be too high or floor laying is also encouraged. Conventional nests require plenty of clean litter such as shavings, shredded sugar cane, or other good nesting material.

Mechanical egg belts are gaining in popularity, but we are not ready yet to recommend them for everyone. However, if you have 10,000 birds or more you may want to consider a belt for collecting eggs.

(Continued on Page 23)

*Poultry Specialist, Cornell University.



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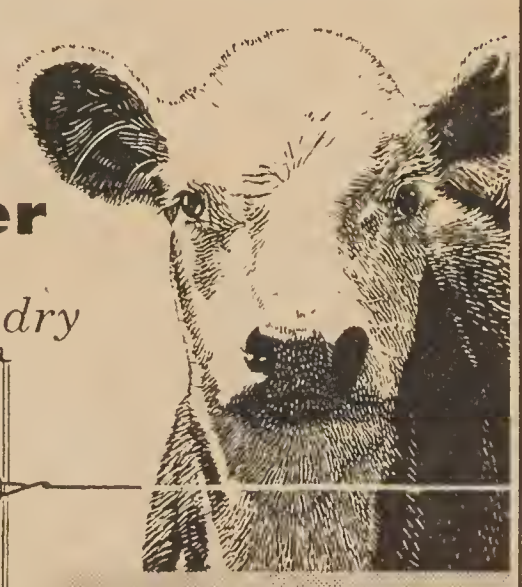
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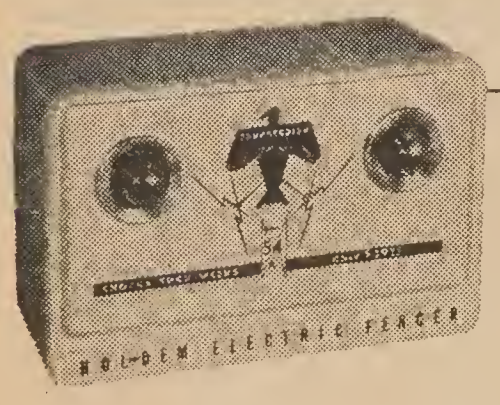
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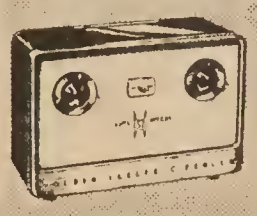


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Cutting Remarks

About Grass



By ALVIN M. WESTCOTT*

All that glitters on the lawn is not grass— it's also sweat and chrome-plated equipment

AFTER HAVING purchased a house surrounded by assorted colors of mud, I found that I hadn't a farthing left with which to employ a landscape gardener. Having turned over in my mind all possible avenues of escape, I came to the painful conclusion that I was going to have to "do it myself." Not unlike many of my male friends and neighbors, these last three words raised panic in my bosom.

My only experience with grass consisted of being on the business end of a hard-pushing lawnmower as a lad, coupled with the green stain which Mother always unpleasantly pointed out on the knees of my trousers. Don't misunderstand — I'm not anti-grass. In fact, I've observed grass in an assortment of situations, including its stubborn, blessed resistance to an overshot nine iron—but I was still unenlightened about the problems of nurturing it from fragile seed.

Looked Easy

At the outset of my lawn project, I felt certain that one needed only to sprinkle a few anxious-to-germinate grass seeds upon Mother Earth's waiting breast and within a very brief time a sweet-smelling, freshly-green paradise would evolve. My first disillusionment came as a result of preparing the soil for planting. This operation, I had decided was incidental, and could be accomplished with great speed.

A few quick strokes of the rake, I told my wife, Ginger, would be all that was necessary to prepare the surface soil, because the entire area had recently been leveled by a skillfully-driven bulldozer. A millennium of pulled, strained, and sore muscles later I stood triumphantly beside several sizable mountains of rocks which somehow had eluded my original appraisal of the state of the land to be planted.

Time was when I blithely thought that grass was merely grass. So complete was my naivete that when I was confronted by the garden store clerk with questions about what percentage of Kentucky Blue to Rye I wanted, I simply answered "Grass seed, please." Despite his explanations, I eventually decided that to me the biggest difference among these fancy grasses was money. The harassed salesman finally managed to sell me a mixture of seed "custom-tailored" for our climate and soil.

In the process of purchasing the seed I was introduced to several thousand dollars worth of items that would be "ideal" to help me raise a lawn. However, my sales resistance was at an all-time high, and I came away with only several hundred dollars worth! The weight of these labor savers and bags of lawn food in the trunk of my car caused the front wheels to lift upward ever so slightly as I drove anxiously home.

After spreading the seed with my lavish spreader (which, by the way, has torsion bar suspension, white side walls, and automatic controls) I waited breathlessly for the delicate green to appear.

For The Birds!

The first morning A.P. (after planting) I was routed from breakfast by the deafening songs of a multitude of birds. Peering suspiciously from the breakfast nook window I was horrified to see a feathered smorgasbord in full swing. Throngs of ravenous birds plodded deliberately through my freshly planted seed, their beaks functioning like tiny vacuum cleaners. Meanwhile the Duncan Hines of the bird kingdom, a large, overstuffed robin, sat on a low branch of a nearby elm and screamed for all of his friends and relatives to join in the feast.

Flocks of birds who, according to my field guide, are definitely not seed eaters, became seed eaters especially for the occasion. Most of these feathered marauders were already as plump as watermelons, and obviously did not require my lawn seed to maintain their basic nutrition. At times I even felt as though I was contributing to their delinquency. Things got so bad, in fact, that I seriously considered mixing Metracal with the extra seed I was forced to add to the mangy-looking clumps of grass sprouts remaining. At least this might keep the birds from becoming "too fat to fly," thereby falling prey to some slim, fleet-footed feline.

Never let it be said that birds do not have distinguishing tastes — in fact, you might say they are winged gourmets. They skipped purposefully over the cheap seed, and ate nothing but the expensive stuff.

Enter Crabgrass

At long last the delicate green shoots appeared, and my yard was no longer a Howard Johnson's for birds. But, you know, this whole business with a lawn is like basic research in frustration. I was next faced with a brazen menace known as crabgrass.

How do you feel about crabgrass? It's an important issue, you know. Some folks are much more concerned about crabgrass than they are about the Russians. Aesthetically and philosophically I'm anti-crabgrass — but if you have a neighbor who isn't, you're licked. If you and your neighbor are members of opposite political parties, that can be reconciled - but beware of the villians who knowingly harbor crabgrass. One solution, of course, is to obtain an anti-crabgrass material with which to spray your lawn. It might not even be a bad idea to spray your neighbor's first.

In my particular rural suburbia (not unlike most) the sought-after quietude is often shattered by the deafening hum of power mowers.

(Continued on Opposite Page)

*Asst. Professor, College of Education, Oswego, N. Y.

I'm A Dowser

(Continued from Page 9)

the underground rock strata, and even clay pockets, can cause a refraction effect.

Many do not realize that good wells can be drilled into gravel aquifiers lying above an impervious strata, which, because the water is in a static condition, does not give rise to a reaction in a good dowser. Some areas need no dowsing because they overlay huge aquifiers, like most of Long Island, but in other areas, displacement of the drill by a foot or two can mean the difference between success or failure. A good dowser, then, has to be one who gets no seepage water reaction and can interpret his reactions.

Even though some people realize that the dowser is an honest man and that his reaction is real, they hate to believe it unless they know "WHY?" Many theories have been put forth, but serious research in America has been lacking.

I have attempted to get help in my research from several people who had scientific knowledge that I would have liked to use, but they were afraid to be connected with it, either because they were afraid that it might impair their reputation, or because they did not want their present "knowledge" challenged. This is far from a scientific attitude. Albert Einstein had a word for these people when he said, "To consider new questions and new possibilities in old problems, but from new points of view, requires powers of imagination and marks the true advances in science."

The classic work by European physicists is "The Physics of the Divining Rod" by Maby and Franklin, published in 1939 by G. Bell and Sons, London, England. They conclude that dowsing reactions are caused by the effect of electrical "radiation" from the object of search, affecting the subconscious nervous system in a manner to cause unconscious muscular contractions in the hands which hold the stick in a state of unstable equilibrium.

The latest publication I have read was by Franz Kracmar, a German biophysicist, and published in 1961. He had found statistical evidence to show that differences in individual ability to dowse stems from differences in polarization capacity. Those whose nervous systems have a high polarization capacity, and a low polarization resistance, are sensitive to an electric discontinuity below the ground -- and are thus potential dowsers.

There seems also to be in some cases a psychic cause for the triggering of a reaction when nearby physical causes are absent. To me the stick has no power of itself, but is merely the 'indicator on the dial," as it were, and constitutes a rather sensitive indicating system.

Those who are interested in reading on the subject will find three books by the late novelist, Kenneth Roberts, to be a fascinating reading. Try reading, "Henry Gross and His Dowsing Rod," "The Seventh Sense," and "Water Unlimited."

The booklet most often quoted by anti-dowsers is a publication of the United States Geological Survey called "Water Supply Paper 416" by Arthur J. Ellis. This booklet and its effects have been responsible for many of the mental blocks that American scientists have had concerning dowsing. It drags in witchery and is extremely biased against water dowsing. It should be read by any who are interested, however, because of its well written history of dowsing and description of methods.

An excerpt from this publication is sent out by Cornell's Agricultural Engineering Department when questions come in to them, but in the accompanying letter, Professor Winkelblech adds his own comments to the effect that there is more to dowsing than the paper states, and that if the inquirer knows a reputable dowser, to go ahead and use him.

Some day new research will prove dowsers right, and why. It will be used in new fields. In the meantime, dowsers will dowse and new groups (like the American Society of Dowsers) will promote dowsing and research.

To those who continue to scoff, may I quote Nobel Prize winner Professor Charles Richet, physiologist who wrote in a thesis: "Dowsing is a fact we must accept. Don't experiment to find out whether it is so. It IS so! Go ahead and develop it!"

CUTTING REMARKS ABOUT GRASS

(Continued from Opposite Page)

It's a status loss not to have one so, instead of pushing a light aluminum hand mower, my friends and neighbors spend hours pulling strenuously on starter ropes trying to get the stubborn, noisy monsters moving.

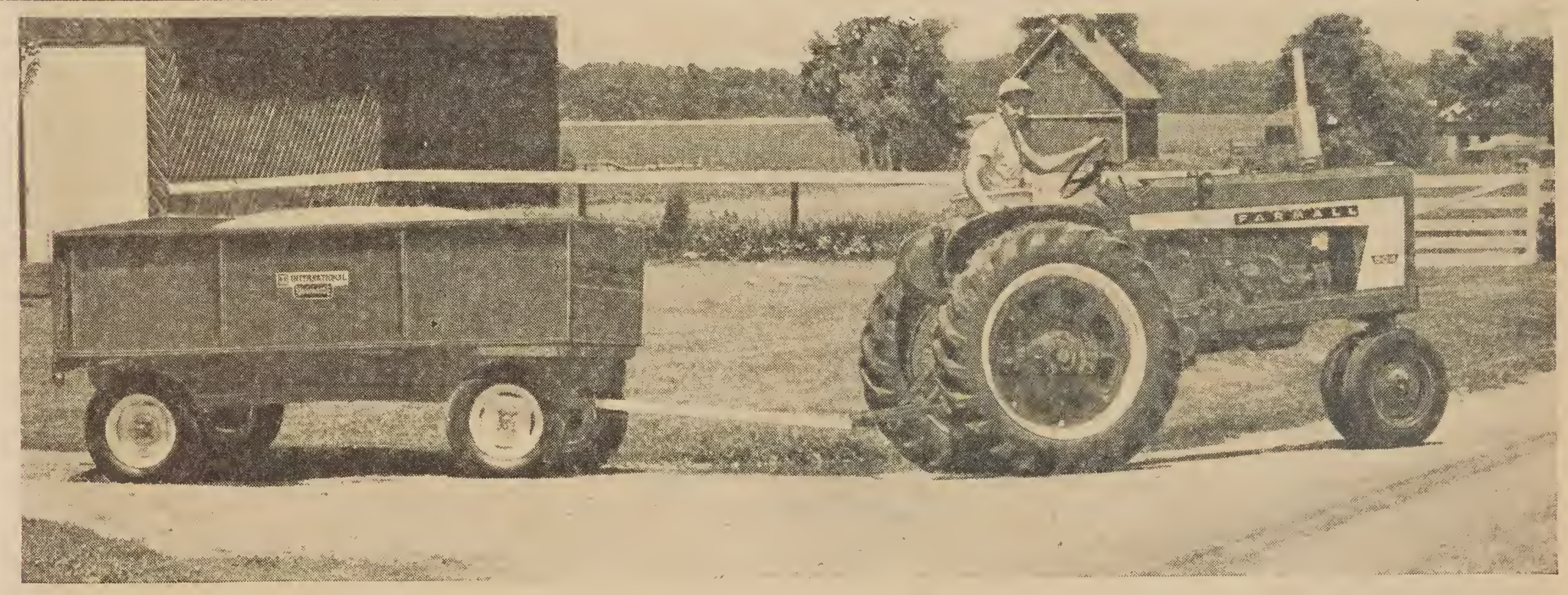
It is only sporting to inform anyone contemplating the establishment of a lawn that water is of great importance. You have several choices: one is to invest a king's ransom in peat moss, which will help maintain moisture: or cover the whole area with about as much burlap as needed and spray constantly your tender green with a gentle fine sprayer attached to a water meter through which your life's earnings can be dissipated. I'm not inferring that new lawns need an unimaginable amount of water; if you get a direct pipeline into one of the Great Lakes you will be sufficiently supplied! At night it's a real lullaby to hear your lawn slurping up several hundred gallons of water supplied by a "Cadillac-type" lawn sprinkler.

Beat The Joneses

They have them now, you know, which sprinkle in prescribed geometric patterns, oscillate like crazy, revolve and rotate, are non-corrosive, and will cause your water meter to do a cha-cha-cha. No one—but no one—is ever caught dead standing in their front yard ineptly holding a hose.

Like fertilizer spreaders and water sprinklers, power lawn mowers have also evolved into technological wonders. But with all their refinements, most of them still make noises like a dinosaur with the gout. Did you ever see and hear two neighbors trying to carry on a conversation over the roar of each other's mowers? They shout and gesture wildly, and eventually go on mowing after nodding agreement to a statement they didn't hear.

The contest to determine who can own the most elaborate power mower is resulting in the appearance of machines with all sorts of conveniences. So elaborate are some of these that it will be but a few years before it becomes more comfortable and practical to mow the grass with the family car and drive the lawn mower to work.



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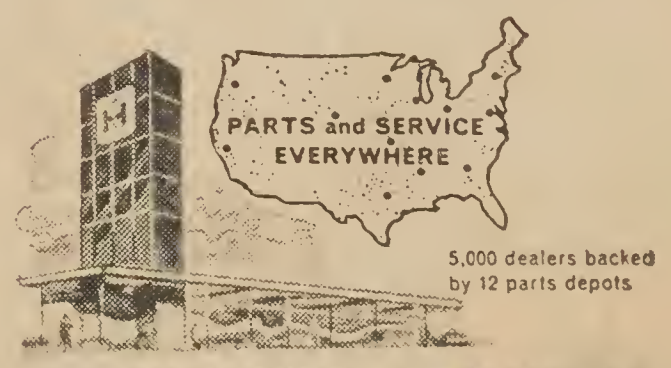
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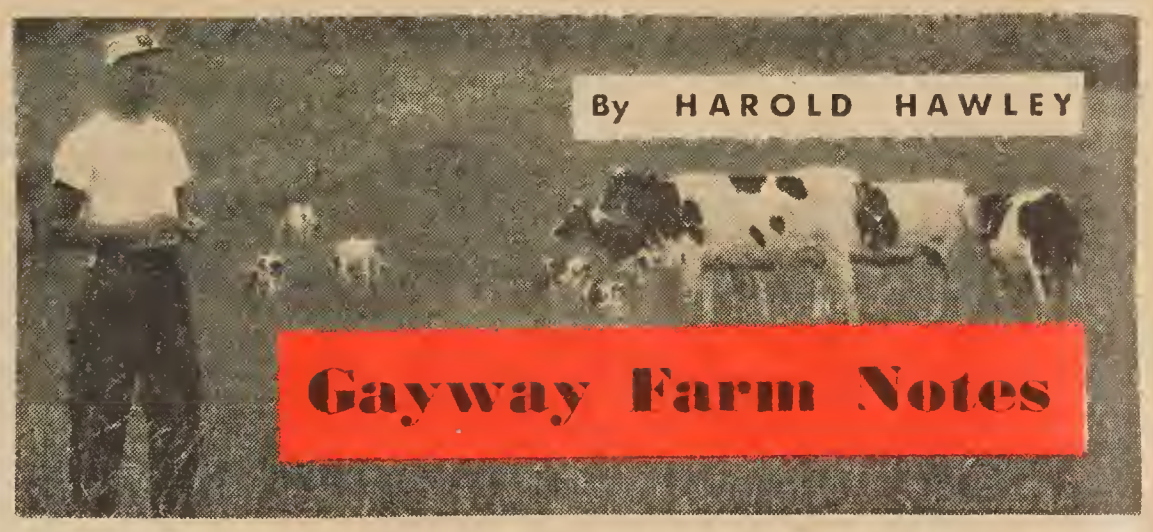
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THE NEW "UNTOUCHABLE"

TIME was when certain topics were avoided if ladies were present. Common sense and good taste caused one to tread lightly when discussing religion or politics unless all those present were of similar persuasion.

Now we seem to have raised up an image which may only be praised if one would keep one's friends or even retain his reputation for good judgment.

"Fools rush in" etc. At any rate, I'm going to make a few comments and then head for the hills before the reaction sets in. It seems unnecessary for me to say that I am for a good and improving education for everyone. Likewise, in common with most people, I recognize the need for new courses and enriched curriculae to meet the needs of our youngsters. I have staunchly advocated better pay for teachers for several years in order to meet the needs. But now I'm going to abandon ship and ask if we haven't about arrived on this salary thing.

So far as I can observe, the pay of our teachers is fully competitive with that of other groups. This is especially true when one considers the days worked per year (less than 40 weeks), the pension and other fringe benefits (about 15% and increasing), and the security (where else does anyone get a tenure system?). It's true that teachers are continually being lost—but seldom to industry.

By law, starting salaries will be $4,500, with increments leading up to $6,800 after 11 years. In practice, many will start at $4,700 or $4,800. This will, of course, include many former teachers whose nearest job alternative might be several hundred dollars less than this. I have no quarrel with good salaries; in fact, I believe in them. However, I fail to see how these increases every year actually do as much for our kids as expenditures of like sums for **more** teachers, supplies, etc. Perhaps we need to remind ourselves that our responsibility is to see that the money is spent and the schools run for the benefit of the kids!

The mandated increases to keep our teachers "on step", plus the stepping-up of the whole salary scale by the new law, amounts to enough really to enrich and improve our whole curriculum. We could add extra sections to make for smaller classes (part of this we will do anyway); we could provide more and better preparation in English for those going on to college; and we could add vocational training in mechanics and nursing. However, it's just not possible to pay it out in increased salaries and still provide as many of these increased benefits and privileges for our kids as we would like—or as I think they are entitled to receive.

I suppose only a private enterpriser used to paying his own bills would raise this point. The new state aid formula smiles most at those schools which spend the most per pupil—$500 or more per pupil is a kind of goal. The theory is that the more we spend per pupil the better the job the school is doing.

Again, I just fell overboard. To be eligible for more state aid, the quickest way to increase spending per pupil is to raise salaries. The increased state aid may then allow the school to enrich its curriculum. So it's off to the races to qualify for as much state aid as possible. Of course, as long as it's not necessary to raise local taxes much, the citizenry doesn't get too excited, and all is well—or is it?

It seems perfectly clear that no representative of the people is going to Albany and vote against more and more of this sort of thing unless he hears a loud clear call from the folks back home. To date—a resounding silence!

MOW DRYING

Have been figuring with the salesman on the details of a mow-drying system. It's not hard to believe we will have better hay to feed if we do buy it this year. I suspect the biggest deterrent right now is uncertainty about getting out the necessary logs for the lumber for the ducts. We need lumber for these ducts and the stakes and sides for some wagons. We plan to buy a "bale thrower" baler, so must build boxes or racks for this, too.

If some of you have tried putting a hinged door in the middle of your racks on one side so as to unload the bales from the middle instead of the end, I would be glad to hear from you as to how you did it and how it works. It appeals to me rather than to have to move part of the hay the full length of the racks. I have not heard of anyone having done this—but I'm sure someone has.

FENCES

The open winter just past was a pleasant one. The lack of heavy snow apparently was good in another way. Fences came through the winter pretty well.

There is, of course, no clear black or white in such things. While the lack of snow suited us fine, it did not help the winter wheat and barley or the hay seedings. In fact, never have I seen either one look so bad.

The ground was free of snow so long when it was cold that there was a lot of frost in the ground. This has undoubtedly held back the start of growth and greening on the part of the young grain. At any rate, we are going to have a shot of nitrogen put on just as soon as the ground is dry enough. If we had been awake to our chance, I think it could have been put on early some of the mornings in the last

(Continued on Opposite Page)

Farm Questions Answered

I've found what look like narrow strips of aluminum in hay bales. What are they, and are they likely to cause trouble?

It is not the first time that we have seen the aluminum strips appear over the countryside. These aluminum strips have been used by the Air Force in radar detection and testing.

Some of this material would very likely get into hay and straw and would cause no particular trouble since cows would muzzle it aside. However, it would be finely chopped throughout silage, whether it be grass silage or possibly clinging to the corn plant in corn silage.

I doubt if there would be sufficient material in any one location in the silage to prevent the cattle from eating it. However, as far as we know there would be no ill effect even if it did get into the feed supply and the animal happened to eat it.—*S. T. Slack, Cornell University*

What are some guidelines for knowing how much rent to pay for a farm?

There are two common methods of renting farms. One is a share rental arrangement, the other is a cash rental.

Share rental arrangements vary a good deal in each community, and by type of farming. One of the important things to keep in mind is that sharing should be roughly in proportion to what each is contributing.

I strongly urge people who are going to share rent, once they have drawn up a tentative proposal, to apply some of the figures from the previous year in order to make estimates to see how the returns would balance out. They should balance out in proportion to what each is contributing, keeping in mind that capital is worth a return (interest charge), and that labor contributed is worth hired men's wages.

Cash rental arrangements again vary. A rule of thumb which we commonly follow is that bare land should rent for seven to eight per cent of its sale value For an entire farm unit, the rate is usually ten to fifteen percent of the sale value of the farm. In other words, if you are renting a whole farm that was worth $10.000 the rent might be from $1.000 to $1,500 per year.
—*C. A. Bratton, Cornell University*

Can red and black raspberries be grown together?

The reason red and black raspberries should not be grown together is that some red raspberries are virus infected and while the virus does not hurt the red raspberries it may spread to the black raspberries and seriously injure them. If the red raspberries are virus-free, then it is safe to grow black raspberries near them.

The same situation holds with the purple raspberry and the black raspberry. The Columbian purple raspberry, an old variety, is virus infected and no healthy plants are known, so it should not be grown near other raspberries. Sodus and Marion purple raspberries may be virus-free, and it is safe to grow black raspberries near them.
—*George Slate, Geneva, N. Y. Experiment Station*

Is the setting out of dwarf or semi-dwarf apple trees going to increase?

We believe that it will. There are three advantages. One is that trees come into bearing at a younger age. The yield per acre can be higher than it is with larger trees, and setting semi-dwarf trees close together makes spraying more efficient because more material gets on the trees and less is wasted.

My pullets lay a lot of eggs with blood spots in them. I am feeding them growing mash, mixed cracked corn and oats, with plenty of fresh water at all times. What can I do to clear up the blood spots?

I would suggest that you switch these birds from growing to laying mash. There is a possibility that the growing mash may not have as much vitamin D in it as the laying mash, although that would depend on the formula. Also, you are much more likely to find some blood spots in sex-linked pullets than in Leghorns. Actually, some of these so-called blood spots may be meat spots, which are very common in brown eggs.

It is very probable that you have the birds too heavy by giving too much grain, and this could be a factor in your problem. We suggest you feed an all-mash laying ration, and if you feel like supplementing this in the evening you might feed some pellets of the same material. The pellets can be fed in the litter, if they are good hard pellets—or on top of the mash.

The main danger with a mash and grain system is that you get the birds out of balance as to the energy-protein ratio, and this can upset the metabolism of the bird. and could be a factor in causing blood spots.
—*Charles E. Ostrander, Cornell University*

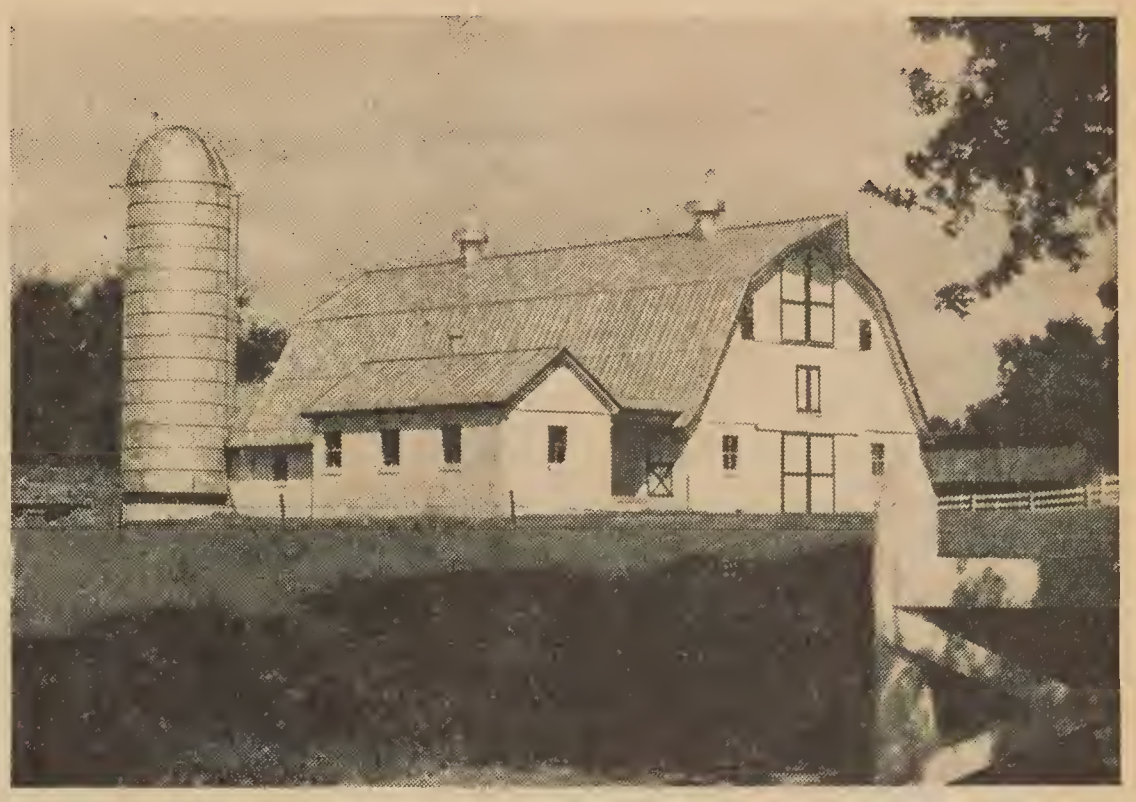
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week of March while the ground was still hard from the freeze of the night before.

It's bad to be so conservative as to stand in one's own way. However, I not only hate to have ruts made in the fields, but it also hurts to put on nitrogen too soon, i.e., before growth starts enough so that the plants can tie up the nitrogen to prevent its loss by run-off or leaching.

POTATOES AGAIN

A note from a good friend not seen for years (Bob VanAllen from Middletown, New York) tells us that the new delicious potatoes we mentioned in an earlier column in all probability were Russet Burbank. Then Don Holdridge from Red Creek dropped by with a bag of them. His label says "The best you can get—to bake, mash, or fry." We have been enjoying these three times a day and figure the label is about right.



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Low Moisture Silage Report

By GORDON CONKLIN

JUST what is low moisture silage, anyway? Roughly, "grass" silage breaks down into categories this way: direct cut—70% to 80% moisture, "regular" wilted—60% to 70% moisture, and low moisture, or haylage, silage contains 40% to 60% water.

Lots of people are talking about it, including research specialists and farmers. On this page are some viewpoints of persons from both groups.

Chester Gordon is on the staff of the Animal Husbandry Research Division at Beltsville, Maryland. In this position, he has experimented with silages of various moisture levels, stored in many different types of silos. His tests have included laboratory analysis of the silo contents, plus the "gullet test" of how much hungry cows would put in their stomachs—and the acid test of what they put in the milk pail.



Chester Gordon

He makes a strong case for low moisture material—to wit:

"The advantages apparent in a system of low moisture silage feeding are sufficiently attractive so that means will be devised for overcoming some of the difficulties that may be encountered in the early attempts to produce this material routinely. These advantages are:

- **The very good possibility of obtaining a type of forage which will satisfy the entire hay crop needs of a milking herd.**
- **Less dependence upon weather than traditional field curing or even barn drying of hay crops.**
- **Lower storage losses as compared to silage of usual moisture content.**
- **Reduced weather risks as compared to normal haying operations.**
- **Entirely mechanical harvesting and feeding, thereby reducing hand labor.**
- **The need for only one set of machinery for harvesting and storing the hay crop."**

Experiments with glass-lined steel silos began at Beltsville in 1951, and with conventional concrete stave structures in 1958. Commenting on the latter, Dr. Gordon wrote late in 1961, "The use of conventional tower silos to store low moisture grass silage is still in an experimental stage and should be approached with caution. However, results have been encouraging and the development of a dependable method appears distinctly possible at this point in the experiments. The high rates of preservation, relatively low temperatures, small amounts of spoilage, and feeding values equal to heat-dried hay have all been encouraging observations."

He pointed to the advantages of low moisture material (higher in dry matter) when he reported, "A number of experiments conducted at Beltsville in the past have indicated that the feeding value of silage and barn-dried hay are about equal if they are fed or compared on an **equal dry matter intake basis,** thereby minimizing the effect of differences in acceptability."

Some Farm Experience With Low Moisture "Grass" Silage

BROTHERS Donald and Clarence Shelmidine, Mannsville, N. Y., operate a 60 cow dairy farm and began using haylage in 1961 for summer feeding. For six years preceding, direct cut material had been used, but Don says about it, "The cows just didn't eat enough of it. The smell wasn't so good either, although it was much improved the year we ran ground ear corn in with every load. But, whatever we did, the fact remained that this silage was up around 80% water."

After a trip to Wisconsin, sponsored by the Jefferson County Extension Service, the Shelmidines were convinced that low moisture grass silage could be made in regular silos—a fairly common practice in the Badger State. So, early in June of 1961, they began filling a 16' x 45' concrete stave silo with material averaging about 40% moisture, ranging from a low of 34% up to 70%. They had a moisture tester on hand as they filled so they could be sure of their moisture readings.

Don says, "We filled all one day with grass at around 34% moisture; we did a little worrying that it wouldn't keep. As it turned out, we had no spoilage and actually discovered that the lower the moisture, the better the cows liked it." They took about a week to fill this silo; each night they finished off with one or two loads of high moisture material "close to the mower."

Silage was chopped just as short as possible, knives were kept sharp, and a new shear plate put on the chopper just ahead of the week's high pressure activity. A side mounted mower and conditioner combination prepared the crop for the chopper; the conditioner was fitted with a windrower.

The blower stream was directed to the center of the silo; no distrib-

(Continued on Page 29)

Many farmers believe that direct cut harvest of grass silage speeds up the operation, but Dr. Gordon disputed this at the last Pennsylvania Grassland Conference in November, 1961. He said, "The harvesting of a large acreage within a two or three week period presents a considerable problem. The possibility of meeting such a schedule is improved by reduction of moisture content of the harvested crop since it usually increases the capacity of the harvester in terms of acres per hour as well as reducing the work of transportation.

"Our experience indicates that, even in a heavy first cutting crop, harvesting was 50-60% faster by using the wilted method. While it is true that adoption of a wilting procedure necessitates at least one additional field operation, this extra requirement will be partially or wholly compensated for by an increase in the speed of harvesting and chopping operations."

He summed up the pros and cons by saying, "Because of the impressive array of advantages, hay-crop silage of 50% moisture or less should become the major method of hay crop preservation in areas unsuited for field curing."

Dr. Charles Rogers, formerly on the staff of the Ohio Experiment Station, and now an agricultural consultant, made an interesting statement at the last Dairymen's Seminar at the University of Massachusetts. He commented that, even under the best conditions, one cannot expect to get into baled hay more than 70% of the nutrients growing on a field. Good ensiling practices, he believes, will consistently save up to 85% of these nutrients as haylage.



Dr. Charles Rogers

Dr. Rogers believes crops for silage should be harvested before any flowers show on legumes and before any heads of timothy or bromegrass are visible in the standing crop.

Professor C. F. (Shorty) Huffman of Michigan State University is internationally known for being the "cow's mouth" on animal nutrition.

He comments, "In regions where weather conditions are unfavorable, dry matter losses in field curing of hay range from 20 percent to a loss of the entire crop. With direct cut silage, losses may be as high as 30 percent of the dry matter. The loss of dry matter with wilted silage is usually about 15 percent. The comparable figure for haylage is 2 to 7 percent.



C. F. Huffman

"In the earlier work with haylage, there was a marked drop in digestibility of the dry matter. Subsequent studies with low moisture silage indicate that there is no loss of dry matter digestibility in such silages and that the results secured in earlier studies were probably due to air leakage that resulted in increased temperatures.

"Low moisture silages are superior to many silages, especially direct cut high moisture silages, in most respects. It appears that cows eat as much dry matter in low mois-

(Continued on Page 25)



period.

A roof is not a sometime thing. Once down, it should stay down. Period.

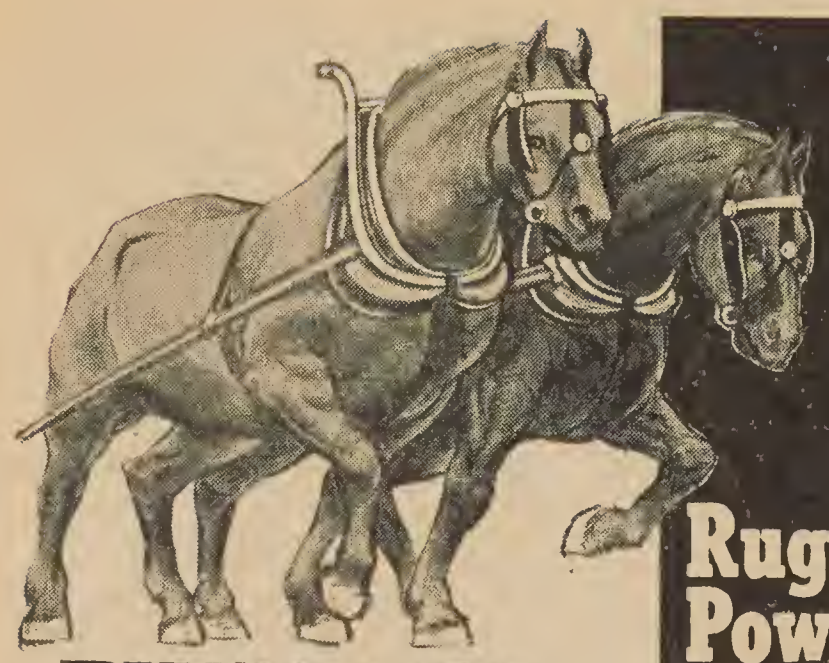
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5 ft. BUSH-HOG Junior for rugged economy.

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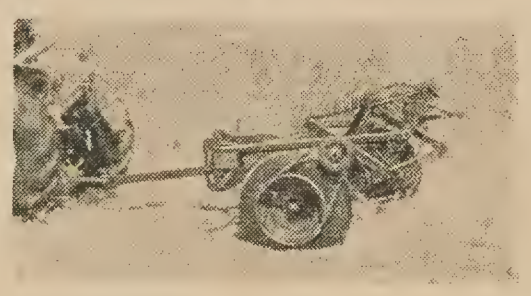
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What Path to Market Power?

(Continued from Page 1)

haggle a bit over the price of a new tractor – but in the final analysis they pay quoted prices. This lack of power over price, either buying or selling, does not exist to the same degree in any other major sector of our economy.

Now I will admit that things always look greener on the other side of the fence. Labor or industry commands no more of a secret weapon than agriculture in forcing its product on the consumer, but it is true that industry and labor have been able to exercise a greater degree of **supply management** than our highly decentralized agriculture.

Market Power

Broadly speaking, market power is sought in many ways, but chiefly it is acquired by means of manipulating supply and demand through organization. Such organization may take many forms, varying all the way from government-created monopolies to informal groups of voluntary members. At any one time within a given industry there may exist a number of independent groups working to attain greater market power.

While it is true that agriculture has used this means to gain market power, it has not been very successful. The failures of agriculture to establish a reasonable degree of market power voluntarily has led to all sorts of government programs designed to do for farmers what they have been unable to do for themselves.

But there is a vast difference between the effects of market power established by agriculture itself and that established by government. The former carries with it a **responsibility** which the latter does not. Under agriculture's control, the people making a decision must bear the financial responsibility of the results, be they good or bad — they must respond to the dictates of consumers. But under government control, payments are made to farmers for services rendered to government —not to the market.

It is important to recognize that any industry which exerts a high degree of internal control over either production or distribution also exercises a degree of monopolistic power which runs counter to the ideals of a free market. But so long as the pricing mechanism is left free, the taskmaster is still the consumer.

When this responsibility is removed through the instrument of government subsidy programs, we begin to lose market perspective. The channels of communication between producer and consumer become garbled with the static of political issues. We begin to look for expedient solutions, as well as solutions designed to remedy the aftereffects of preceding programs.

Needed Products

As farmers struggle for equality of bargaining power, they should never lose sight of the fact that, in the long run, highest levels of income result only from producing products needed and wanted in the market place. No other goal squares up with the philosophy on which our economy is built. Government subsidies make it increasingly difficult for both farmers and market agents to respond to the desires of the consumer.

But government programs are not the only forces of distortion. Farmers themselves often fall into the trap of thinking that consumers should buy those products which farmers like to produce. The graveyard is full of farmer cooperatives which have tried to sell what their members wanted to produce rather than what the consumers wanted to buy. The very same farmers who have trouble understanding why such cooperatives fail will join a purchasing cooperative and insist that it buy what they want rather than what industry wants to sell.

Government can be of its greatest service to agriculture in helping to establish a favorable atmosphere for effective marketing organizations. In a world of big business characterized by large-scale buying and concentration of processing, handling and distribution, farmers recognize they can do little to manipulate supply or demand without collective action of some kind.

Unfortunately, a philosophy has developed that any effort to give farmers greater market power is either a clear cut government program or a clear cut industry program. In reality, many effective programs can be established only by the action of both agriculture and government.

For instance, market orders are binding on all producers when a substantial majority vote to use this device. Thus government action facilitated and indeed made practical the use of market orders as producer-controlled programs. But now we are witnessing a shift in power even with this instrument so that it too is threatened to be burdened with political considerations not consistent with the basic goal of agriculture—the philosophy of a market-oriented economy.

The Problem

What is there about agriculture and its market channels that keep it behind in the struggle for market power? To answer this question let's consider some things that give market power:

Difficult to get into and out of business — Capital requirements make it difficult for just anyone to become an automobile manufacturer; apprenticeship requirements

(Continued on Opposite Page)



"And then I began believing that government farm programs made sense."

(Continued from Opposite Page)

keep me from fixing my neighbor's plumbing. On the other hand, agriculture has established relatively few barriers to entry.

Few producers — The smaller the number of producers, the easier it is for them to come to agreement on issues involving price and income policies. Again agriculture has poor qualifications on this score; not only do we have many producers of given products within agriculture, but also we have strong competition among the producers of alternative products.

Alternative uses of product — Certainly there is more ability to withhold products from market if they can be diverted to alternative uses. But a cherry producer with cherries ready for harvest finds little he can do with his product if he doesn't sell in the established market.

Capital — Financial resources are needed to establish effective marketing agencies. Being able to buy into the marketing mechanism in order to force your beliefs into practice requires money — the kind of dollars frequently missing from agricultural organizations.

Government sanction — With all its disadvantages in building organizations with some reasonable degree of market power, agriculture has at least faced relatively few problems of antitrust. But we can expect that government will go only so far in this respect before it encounters the wrath of the consumer.

In spite of these handicaps listed above, I sincerely believe that agriculture is just beginning to exploit some of the market power of business organization. In fact, the pattern to be followed by agriculture is fairly well established. It consists of a hybrid—the parents of which are the devices used by industry on the one hand and labor on the other. This pattern includes, among other things, three distinct types of market organizations. They are:

—Sales Organizations
—Bargaining Associations
—Market Development Associations

Real power in marketing, as in production, comes from **ownership.** If farmers are to gain significant price-making power, they must get into the business of marketing, and exercise control over the distribution of their products. Gradually we are seeing this take place.

The development of sound cooperatives calls for far more than getting the religion. It requires capital, the full confidence of members, good management, efficient operation, and established market outlets. To be worth their salt they must be able to do the job better than competing organizations — these things don't just happen.

I believe that both profit and cooperative organizations can establish formal working relationships in such a way as to capitalize on the inherent advantages of each. The Welch grape organization and Curtice-Burns in New York, and the Minute Maid business in Florida, are examples. In these organizations, cooperative organization is used for financing and stability of raw product supplies, while corporate profit structure is used to insure effective management and efficiency of operation.

I believe the day is not far off when we will see a national network of **bargaining associations** in agriculture. Such a network would solve many of the problems which weaken the influence of small local associations. It could provide leadership guidance, specialists in negotiation, legal counsel, informational services, and public relations.

The greatest pitfall in creating such a setup is that of attempting to exercise too much power without developing adequate controls over supply or demand. It is very apparent that any successful bargaining effort on the part of agriculture must be accompanied by strong controls over both supply and ease of entry.

If we will look about us, we will see few industries which possess any appreciable degree of market power which do not have a **market development association.** Such associations have always been the starting point for the really new ideas of an industry. Farmers in general have been slow actively to take part in market development associations. As we work to gain market power, however, we cannot afford to neglect them.

MARKETING BENCHMARKS

- **Solutions to the problem of gaining greater market power in agriculture lie in the twilight zone between a free and a controlled market.**
- **Market power in agriculture can be gained by replacing those government controls which distort the pricing mechanism, with industry controls of key supply and demand factors.**
- **Government can be of its greatest service to agriculture, as well as the consuming public, by providing a favorable climate for the organization and operation of marketing institutions in which farmers have a greater voice.**
- **There are three forms of marketing organizations through which farmers can gain market power — bargaining associations, sales organizations, and market development associations. Each makes a contribution to the other's success.**

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Florida Citrus Pulp has the highest, natural Total Digestible Nutrients (74%) of any fruit or vegetable pulp now on the market. In addition, its high calcium content and other essential minerals increase milk production, promotes growth and skeletal development.

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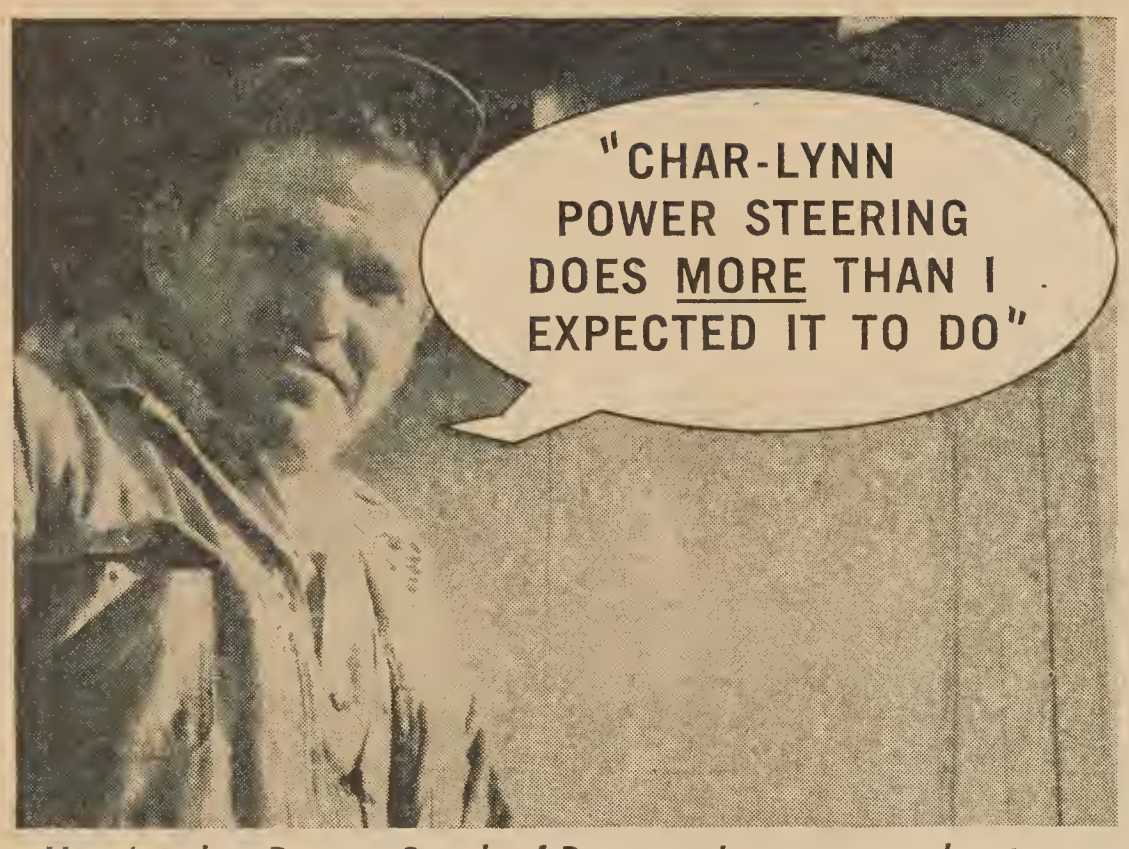
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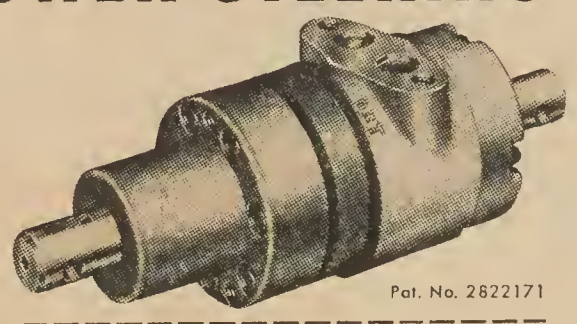
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NEWS and VIEWS from
New York and Pennsylvania



Top corn grower, Theodore Minns.

Champ — Theodore Minns, Geneva, N. Y. is the State's champion of the DeKalb corn growing contest. His winning yield was 149.41 bushels per acre, compared to an average of 121.32 bushels by 61 New York farmers entered in the contest.

Congratulations! — Bankers, Extension agents, Grangers, and just plain folks met recently in Jefferson County to honor twelve farm families who have completed three years of participation in the County Farm and Home Management Program. Those honored included: Mr. and Mrs. Harvey Alford, Mannsville; Mr. and Mrs. Eugene Brady, LaFargeville; Mr. and Mrs. Clarence Call, Mr. and Mrs. Carlton Bush, and Mr. and Mrs. Ernest Welser of Evans Mills; Mr. and Mrs. Manford Comstock and Mr. and Mrs. Clayton Widrick of Adams; Mr. and Mrs. Laurence Hanson, Dexter; Mr. and Mrs. A. W. Hayes, Adams Center; Mr. and Mrs. David Hodge, Copenhagen; Mr. and Mrs. Lloyd Pecor, Clayton; and Mr. and Mrs. William J. Taylor, Black River.

Gift — Cornell University recently announced a gift of a 300 acre farm by Mr. and Mrs. Henry Uihlein of Heaven Hill Farm, Lake Placid, for use in the production of foundation potato seed stocks. Dean Palm of the New York State College of Agriculture says that "this generous gift will provide the facilities to satisfy a long-felt need in New York State's potato industry. New York certified seed growers may expect to get New York Foundation Seed for the first time for planting in the 1965 season.

Order — Pennsylvania apple growers will have a chance to express their views on a marketing order on May 9 and 10. The act permitting the initiation of an Order was signed September 1961 by Governor David L. Lawrence.

New Barley — Dutchess, a new winter barley variety recently introduced at The Cornell University Experiment Station, should be available for planting in New York this fall, according to Professor Neal F. Jensen

Like Hudson, Dutchess is a fall-sown, rough-bearded type of barley, but there are no threshing problems. It appears to be as winter-hardy as Hudson; superior to Wong; while a five-year average yield per acre is equal to that of Hudson and more than 22 bushels per acre higher than the average yield of Wong. Dutchess produces a blue aleurine (protein) type of grain, suggesting its principal use as a feed barley.

Promotion — New York State apple growers have upped recommended assessments to the amount of $500,000 to promote the State's 1961 crop. This represents an increase of $100,000 over the original recommendation made two months ago, and compares with $343,000 budgeted for the 1960 crop. Reports from organizations of apple growers in the eastern and western parts of New York State have told of the success of the advertising and promotion program now in progress.

Campaign — The campaign to boost New York State agricultural products on New York City buses is continuing. A colorful 2 x 12 foot placard featuring quality eggs will be carried on 150 buses for at least three months. Ducks and Long Island potatoes are already highlighted, and apples have just been added.

Reinspected — Commissioner Don J. Wickham of the N. Y. S. Agriculture and Markets announces that New York's approximately 4,300 flocks of sheep will be reinspected this year for scabies. The 1961 inspection revealed 23 infected flocks.

Forage King — Harvey Alford, Mannsville, N. Y. was named 1962 Forage King for Jefferson County. The outstanding characteristic cited was his management ability. He had a hay crop of 4.2 tons per acre; corn silage, 17 tons per acre; corn for grain, 93 bushels per acre; oats, 70 bushels per acre (much of the oat crop was lodged). On one field seeded in 1960 to DuPuits alfalfa, Harvey harvested 6 cuttings, the first on May 15; the sixth October 21. He has a herd of 35 milking cows and 19 young stock.

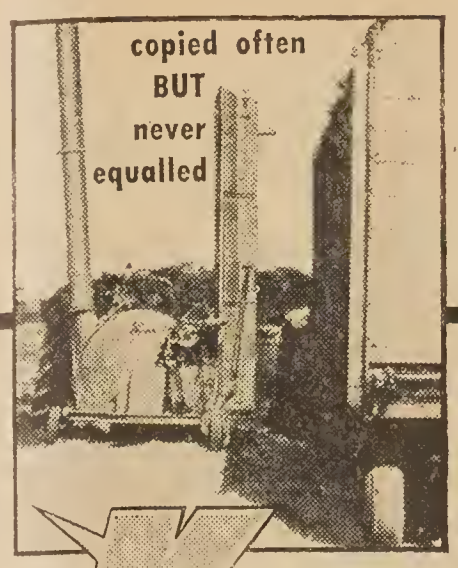
Regulations — Regulations effective April 1 require health papers to accompany dairy cattle being moved to new herds in the State of Pennsylvania. Aimed at reducing the spread of livestock disease, the rule requires a certificate that the blood test for brucellosis within the previous 12 months was negative, and also a negative test for bovine tuberculosis.

Appointed — Harold J. Evans, Jr., Riverhead, and Henry Marquart, Cherry Creek, have been appointed advisory member and alternate respectively of the New York State Water Resources Commission. They will represent the agricultural interests in the development of water resources to meet ever-increasing demands.

Sap's Sweet! — Producers and foresters report extra sweetness in the maple sap this year.

SCHOOL MEETINGS

School meetings in New York State this year are Tuesdays, May 1, June 19 or July 10. Check locally to see which date applies to your district. The schools of today and tomorrow need responsible and courageous board members, supported by alert, well-informed and dedicated citizens.



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FORAGE BLOWER

- blows easily into tallest silos
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- always in blowing position
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FOR COMPLETE INFORMATION ABOUT KOOLS KB20, KB30 BLOWER FOR SIDE UNLOADING WAGONS, KB40 CUTTER-BLOWER — Dept. K

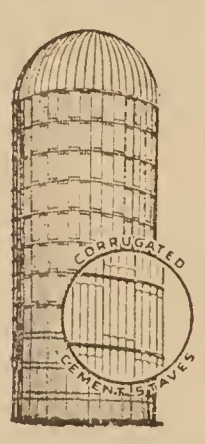
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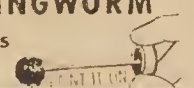
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Country Pastor

Begin The Day

By Arthur Moody



ARTHUR MOODY

Begin the day with a compliment, instead of a complaint. "My, how nice you look!" or "You look as fresh as a flower," will provoke smiles in the place of sour looks. You can set the tone of the first hours. Make the family happy.

You might try a thoughtful act, by doing a needed chore. It used to be bringing in an armful of wood, carrying up a hod of coal, removing the ashes from the kitchen range. But the range is now gas or electric, so all you need to do is put the kettle on. You **could** set the table, or start breakfast.

Find something to make a new **bright spot** on a cloudy, dreary morning. A single blossom often does it, or a basket of fresh fruit. I knew one homemaker who used a red tablecloth and colored napkins to vary and brighten the morning meal.

One of my little granddaughters found a very vivid cock pheasant's feather for my old hat. I wore it as a gay cockade. She got pleasure and so did others. Create a smile for happiness.

To quote Jesus, "These things I've said to you, that my joy might be in you and that your joy might be full." Contrary to the common notion that He was always a "man of sorrows," Jesus walked the earth, worked at his trade, greeted his family and neighbors with happy elation. Let's give it a try.

GUIDELINES FOR POULTRYMEN

(Continued from Page 13)

There is a great deal of discussion as to which management system is best. Most records will show that birds on the litter system produce more eggs per bird than with any other setup. However, more birds can be housed on slats, with a tiered system, or with cages (if double decked). If you are willing to sacrifice a few eggs (12 to 38 per bird) for the advantage of getting more birds in a house, then the choice of a system boils down to personal preference.

Birds can be housed in colony or multiple cages at about .5 to .6 square foot per bird—with conventional litter houses 1¾ to 2 square feet per bird should be allowed. When slats or tiered systems are used, birds should be given 1¼ to 1½ square feet per bird.

The combination deep pit and litter system with birds at 1½ to 2 square feet per bird looks very promising. The feed and water are over a deep sunken pit four to five feet deep. The droppings are cleaned only once in two to four years.

Layers in colony cages, multiple cages (2 to 4 birds per cage), or on slats or tiers, should be debeaked to prevent cannibalism. This should be done carefully and correctly — if you want suggestions on debeaking, write me at the address already mentioned and ask for Bulletin 992.



DAWNWOOD

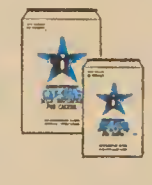
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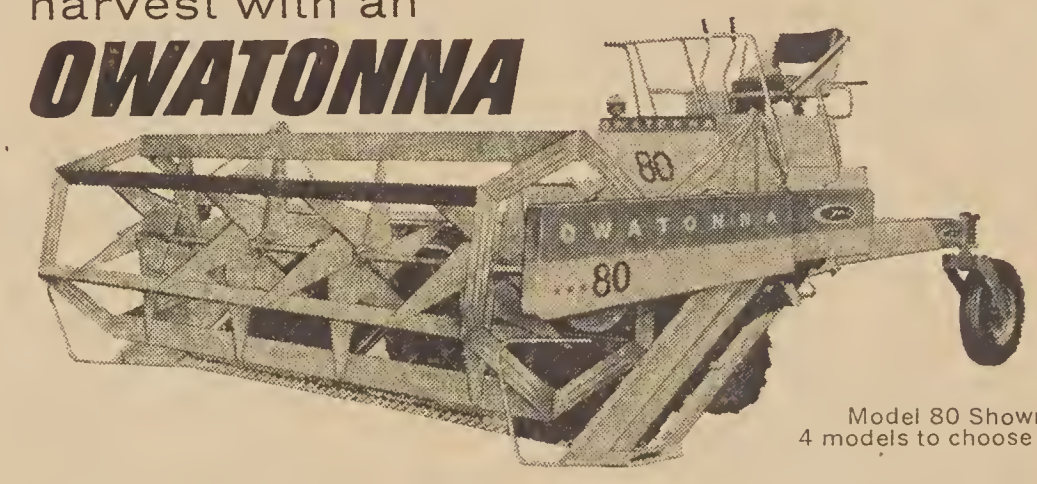
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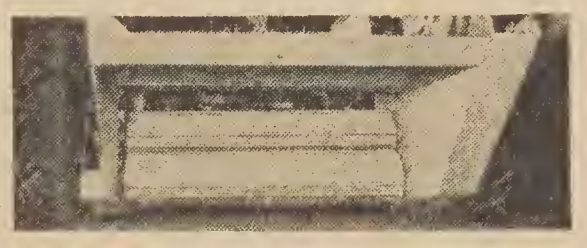
harvest with an

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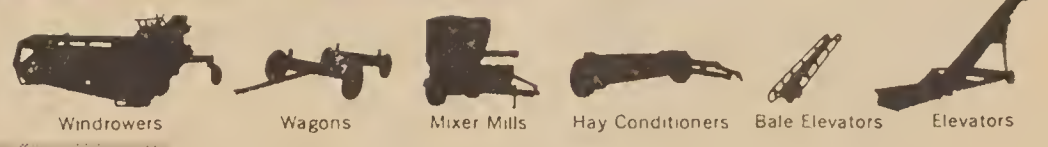
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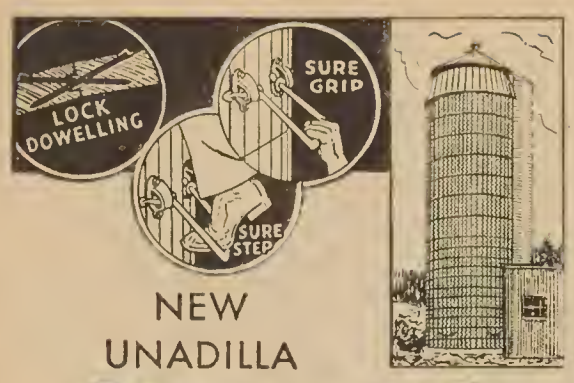
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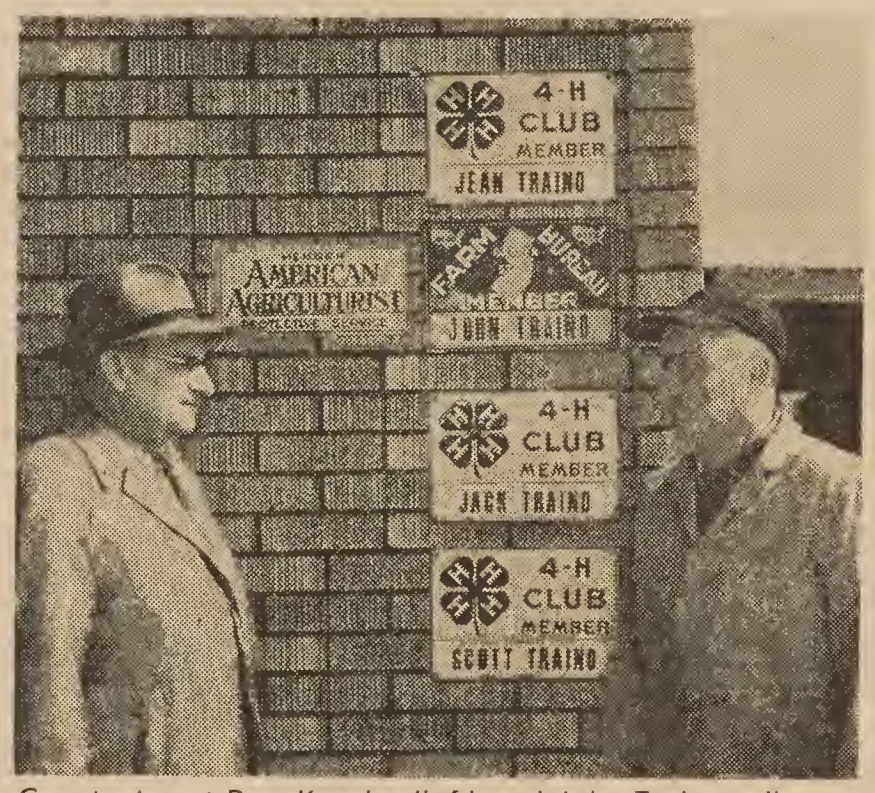
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New Jersey Farmer Finds Time for Organizations

By HUGH COSLINE



County Agent Dan Kensler (left) and John Traino talk over community organizations, with evidence of the family interest in the background.

IF YOU SEEK evidence that a man can farm and still find time for farm organization and community work, stop and visit with John Traino of Moorestown, New Jersey. But before we get into that, let's take a look at the Traino farm and family.

Like many other growers, John specializes in a few crops: 50 acres of peaches, 45 of sweet corn, and 3 acres of strawberries. The latter, he explains, are to level out the work to keep seasonal workers fully employed. He has three teenage children: Scott (13), intensely interested in entomology; Jean (15), who loves horses and has two to care for; and Jack (17) who already has a small greenhouse full of flowers. All three are 4-H club members and each has opportunity for play as well as work. There are horses to ride, and an irrigation pond that doubles as a swimming pool and skating rink.

Family Farm

The Traino farm is a real family operation. Mrs. Traino helps with the accounts and with sales made at the farm. The children do their share in maintaining a fine setup. John's father came to this country from Italy when he was two years old. Eventually he grew vegetables on a nearby farm of 15 acres, land which John now owns.

When I visited the farm I found John trimming peach trees. There is a tendency among growers to use pruning in place of fruit thinning, but John prefers to prune lightly every year and then to do considerable thinning by hand. "With pneumatic equipment, pruning takes only ten to fifteen minutes per tree," says John.

I inquired about varieties, and John paid sincere tribute to the late Dr. Blake, who spent a lifetime at Rutgers breeding new and better varieties of peaches. "I set good new varieties as they are offered," commented John.

I asked about the use of fertilizer. "This soil is well supplied with phosphorus and fairly well with potash," he answered, "so nitrogen is the element we use most."

Discussing sweet corn, John said that controlling the earworm is the toughest assignment. It's a "must"—because there is just no market for corn with worms.

But to me the most interesting part of our conversation related to the farm organization field.

"I feel that leaders of farm organizations listen too little to the opinion of members," said John. "Here in New Jersey, farming would be in a sad state were it not for organization, yet we need to do better. Both the Grange and the Farm Bureau have great influence. We have a Peach Industry Committee that administers a fund of $2 per acre from growers who contribute—but only about 25 percent of all growers participate.

"The government has tried to help, but I can't see why they permit land taken out of one crop to grow other crops, for example peaches and sweet corn, to produce a surplus of the crops which I grow. Looking at the whole picture, I am not optimistic about government attempts to solve farm problems."

John Traino's interest in farm organizations goes back to his early years in farming when contract tomatoes for canning through the New Jersey Tomato Association in particular played an important part in his success as a farmer. His interest has been sustained throughout the years both on a profit basis and because he feels that through organization farmers can solve many of their own problems before thinking of going to government for the solutions.

Community Effort

John practices what he preaches in regard to organizations. He puts plenty of time on farm and community problems. He is a member of his school board, a tax assessor, vice chairman of the Burlington County Soil Conservation District and member of the State Soil Conservation Committee, director of a Grange insurance company, and is presently chairman of the board of directors of a local bank.

I asked John how he found time—but before he could answer, county agent Dan Kensler (who accompanied me to the farm) chipped in: "It's the old story," he said, "if you want a job done, ask a busy man to do it!"

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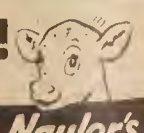
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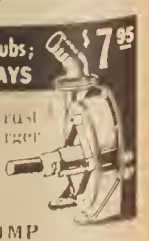


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Low Moisture Silage Report

(Continued from Page 18)

ture silages as they do with good hay. The dry matter in good hay and low moisture silage are about equal for milk production.

"Low moisture silage can replace hay and silage in the ration of milking cows. It is well, however, for dairymen to take special care in making low moisture silage since air leakage in the silage mass can result in total destruction of the forage."

R. W. Kleis, of the Agricultural Engineering Department at the University of Massachusetts, reported at the Dairy Seminar already mentioned on the use of both permaglass and conventional silos for haylage. Here are his comments:

"Three years of research completed in 1961 at the University of Massachusetts included 156 storage tests. Various silo materials and surface treatments were of small test silos which were evaluated in terms of actual haylage storage performance and permeability measurements of the materials. The gross conclusion is that most conventional silos (except wood) which are in **good condition** can be sealed for satisfactory haylage storage (30 to 60 percent moisture).



R. W. Kleis

"The following table summarizes in general terms the performance of the test silos. The treatments are grouped according to their relative ability to preserve haylage. While they are ranked within groups, the differences are in some cases small if real at all. The primary differences are between groups which might be described as follows:

A. Permaglass (steel) — Consistently yielded excellent quality haylage without mold or spoilage.

B. Concrete with various surfacing materials — Consistently yielded high quality haylage with only very light and shallow mold (¼ to ½ inch) on the sides. This mold would likely not even be detected in operating systems.

C. Yielded good quality haylage but with somewhat more mold along sides—2 to 4 inches deep in several instances. Many would consider this insignificant in an operating system.

D. Wood—The haylage was badly molded and "rotted." These units were completely unsatisfactory.

Group	Silo Treatment	No. of Tests	Haylage Quality Rank
A	Permaglass (steel)	18	1
B	Concrete — Dur-a-Cote (T)	18	2
	Concrete — Sanitile	6	3
	Concrete — Glaze	18	4
	Concrete — Si-Lo-Proxy	6	5
	Concrete — Dur-a-Cote (B)	6	6
	Concrete — Hypalon	16	7
C	Concrete — 4-Y-1	10	8
	Concrete — Alathon film	8	9
	Clay — Alathon film	6	10
	Clay — Plain	18	11
	Concrete — Plain	18	12
D	Wood Stave — Alathon film	2	13
	Wood Stave	6	14

"YOU GOTTA DO IT RIGHT"

Here are some rules of the game for making haylage in conventional silos:

- You must be willing to give careful attention to details.
- Use a tight silo which has no cracks in it and doors that fit tightly. Harvest the crop at an early stage of maturity because stems of such a crop are more pliable and will pack more easily than the stiff stems which are obtained at a later stage.
- Use a hay crusher or conditioner, if available, to speed up the wilting process. This would have merit if for no other reason because it reduces the weather risks.
- Chop the crop as fine as possible so that it will pack well. Most choppers can be set at ¼ to ⅜" theoretical cut. This should be done and the knives kept sharp and the shear plate set up.
- Fill as rapidly as possible and with very few interruptions.
- Fill the last three feet of the silo with unwilted material of a high moisture content and cap with a plastic seal.



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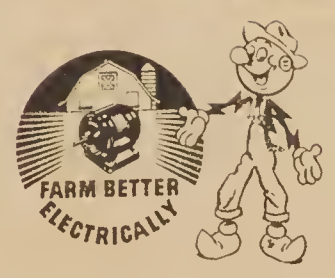
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COMMUTING DISTANCE Syracuse, Rochester, Oswego, Auburn. Central New York, ½ mile from village. Double house, all improvements. Large Barn Dairy Polled-barn-beef-hogs. Machine barn. Buildings all in good condition and painted. 200 Acres. Creek and village water. Price $30,000. Reply Box 514-WH, American Agriculturist, Ithaca, New York.

FOR SALE: 175 ACRE alfalfa dairy farm, 65 head of stock, fully equipped, 2 houses, 2 miles from village. Excellent condition. Ted Browngardt, Cobleskill, N. Y.

CHAUTAUQUA COUNTY; modern dairy farm of 193 acres, 170 tillable, all grass; operation, modern three bedroom dwelling, two large barns, 3 fireproof silos, pen stabling, pipeline milking, bulk tank, 86 registered Holsteins, 45 now milking, made $27,000 for milk last year, 3 tractors, all power equipment. Asking $72,000. Local bank will finance $45,000. Contact: Huffman Real Estate Agency, Inc., Chautauqua, New York.

75 ACRE SHEEP farm, good buildings, sheep, tools Free Spring catalog. Miller Real Estate, Bath, N. Y.

FOR SALE: 108 ACRES, modern nine room house, 2 barns. On main highway, fifteen minutes from Cornell University and College. With or without stock and tools. Box 514-ET, American Agriculturist, Ithaca, New York.

COBLESKILL AREA. 180 acres. 44 stanchion barn, gutter cleaner. 60 foot machinery building. 6 room modern home. 44 Holsteins. Latest equipment. Excellent income. No repairs. Family death causes sale. $45,000. Hundreds country properties state wants. Mort Wimple, Realtor, Sloansville, N. Y.

STOCKED AND EQIUPPED farms. 143 acres $16,000. 131 acres $28,000. 113 acres $20,000. 203 acres $29,500. 185 acres $38,000. Also homes, camps, motels and bare farms. Sadlon Real Estate, James Vickerson, Salesman, East Springfield, N. Y.

FRUIT-VEGETABLE farm and stand on main highway. 25 acres prime apple, pear and peach orchards. 20 acres market garden. Fish pond. Modern house. Owner 67 retiring Priced for quick sale. Less than value of one year crop. Also 100 acre lot on three main roads. Ideal building sites. Al. Violette, Lunenburg, Mass.

600-ACRE DAIRY Farm and Motor Ct.; on river, on highway; A-1; tillage, pasture for 60 cows, est. 220,000 ft. saw timber; 16-room & 2½ bath dwelling (3-apt. layout), furnace, completely furn'd 6 large housekeeping cabins, basement barn 40x75, 34 stanchions, drinking cups, manure carrier with electric hoist, track & ventilating system, other bldgs., all excellent repair, insured for $32,000; 2 mi. to town, 8 to city; milk collected; widow forced to sell, price cut to $40,000. Strout Realty, Contoocook, N. H. Ask also for free property lists.

FOR SALE — Dairy farm, 110 acres, large barn, 29 head, machinery, 8-room house with furnace, woodlot, pond, garages, other buildings. Good location. Anna Pesklak, RFD 1, Fort Plain, N. Y.

MODERN DAIRY FARM, sugar works, 37 head, all equipment. Arthur Lincoln, Stephentown, New York.

CENTRAL MAINE POULTRY Farm, hatchery and 10 units modern over night cottages doing good business on State Route 100 Bangor to Boston. Two miles to prosperous town and Maine Central institute. Capacity 5,000 layers, 27,500 egg incubators. 100 acres. Long road frontage for development. Barn, land, equipment for beef cattle or sheep. All modern and in good condition, includes eight room house. Owner has other interests. Sacrifice at $30,000 10% down. Excellent business or country home. Write owner Irvin Pinkham, Boothbay Harbor, Maine

195 ACRE farm and 6000 bales of hay. Phone Little Falls, N. Y 1285R1.

(Continued on Opposite Page)

(Continued from Opposite Page)

REAL ESTATE

E. HERRICK, MARGARETVILLE, New York. Farms, campsites, acreage, retirement homes —terms. 5 acre mountain retreats on road—$25 monthly for 20 months. 130 miles from New York City. Delaware County. Free list.

DISCONTINUED lumber yard, ½ acre. Joins new development For sale. Priced reasonable. V. Zellar. Tivoli. N. Y.

GOVERNMENT & TAX Lands at 2¢ or 3¢ on $1.00. Lists. Maps. Free details. Grant Allen Realty. Suite 1212A. 28 E. Jackson Blvd., Chicago 4, Ill.

FOR SALE: PLEASANT small village home. Room for children, cow and chickens. Barn—house with sunporch, fireplace, oil furnace Mrs. Richard Larkin. No. Brookfield. N. Y.

STRAWBERRIES

THOMPSON'S VIGOROUS Strawberry Plants. Vermont grown from virus free stock. Catskill, Sparkle and Howard 17 (Premier) 50-$2.00; 100-$3.50; 300-$8.50; 500-$12.00; 1,000-$22.00. postpaid. Trimmed ready to set from healthy long rooted plants. Glenn Thompson. Johnson Vermont.

CERTIFIED STRAWBERRY Plants: Armore, Robinson, Catskill, Premier, Dunlap—$3.25 — 100; Superfection Everbearing $4.25 — 100. Raspberries $8.50—100. postpaid. Perkins Berry Farm, R. D. 1, Box 230, Hudson Falls, N. Y.

STRAWBERRY — 4 DIFFERENT all-season varieties $2.50-100 postpaid. Guaranteed. inspected. Facer. Box 177, Phelps, N. Y.

STRAWBERRY PLANTS. Double State inspected. Blakemore, Missionary, Premier, Howard 17, Dunlap, Empire, Robinson $6 per 1,000: Sparkle, Armore, Tennessee Beauty $8; Dixieland, Pocahontas $10, Superfection $12. FOB. Tommy Rogers. Harrison. Tennessee. Phone 344-6122.

PLANTS

CERTIFIED TOMATO, pepper, cabbage, onions, eggplants, broccoli, lettuce, cauliflower, beets, collards and sweet potato plants. Field grown, healthy, vigorous, full bearing plants. Write for free catalogue-price list. Satisfaction guaranteed. Evans Plant Company. Dept. 5 Ty Ty, Georgia.

STRAWBERRY, RASPBERRY, Blueberry, Blackberry. Latest and best including Frontenac, Midway Cyclone, Ozark Beauty, Everbearing. Write for free catalog describing 70 small fruit varieties. Walter K. Morss & Son. Bradford Mass.

WRITE FOR NEW Catalogue. Complete line vegetable and flower plants. Sunsweet Plant Farms. Chula, Georgia

CULTIVATED BLUEBERRIES, newest varieties, producing nickle size berries this year. 4 plants $6.00. supply limited. Wm. Kenney. RFD #2 Amherst, Mass.

STRAWBERRIES—roots. Stclemaster, Premier, Sparkle, Robinson, Empire and Vermillion. 25-$1.45; 50-$2.00; 100-$3.25; 1,000-$19.00. Asparagus 25-$2.00; 50-$3.00; 100-$4.25; 1,000 $24.00. Rhubarb (Victoria) 6-$1.25; 12-$2.00; 25-$3.50. Horseradish 12-$.80; 25-$1.50; 50-$2.00; 100-$3.60. Price list on request. Field Plant Farm, Sewell, New Jersey.

SWEET POTATO PLANTS. Nancy Halls, Early Ports, Georgia Reds, Velvet Reds, All gold, Copper Skin and Bunch. Millions fresh plants carefully packed. Quick shipment. 200-$1.50; 500-$2.50; 1,000-$4.00; 10,000-$35.00 Thrift Plant Farm. Gleason, Tenn.

500 ASSORTED sweet onion plants $2 postpaid fresh from Texas Onion Plant Company. 'Home of the Sweet Onion.' Farmersville Texas

AFTER JUNE 1st. Vegetable plants. Cabbage, broccoli, brussel sprouts. 100-$1.25; 500-$3.00; 1,000-$4.50. Tomato, cauliflower, 100-$1.50; 500-$3.75. 1,000-$6.50. Pepper, egg plant, 100-$2.00; 500-$4.50; 1,000-$7.50. Sweet potato 200-$2.25. Prepaid. Price list on request. Field Plant Farm, Sewell, New Jersey.

STRAWBERRY, RASPBERRY plants. All varieties. Fresh dug on order. Free catalog. Special discounts. Free plants. Sprout Plant Farm. Waverly, New York.

POTATO PLANT HEADQUARTERS for the Nation. New Centennial, Old Fashioned, Yellow Jersey, Allgold, Nancy Hall, Bunch Portorico, Red Portorican, Georgia Red, Copperskins, Goldrush. 200-$2.25; 300-$3.00; 500-$3.50; 1,000-$5.75. Postpaid. Guaranteed. Kelley Seed and Plant Farm. McKenzie, Tennessee.

SWEET POTATO PLANTS. Bunch Portorico, Nancy Hall, Allgold, Portorican, Red Yam, Centennial, Yellow Jersey, Copperskin, Goldrush, 200-$2.00; 300-$2.75; 500-$3.25; 1,000-$5.75. 2,000-$10.75. Growing and Storing Guide included. Fully postpaid. Satisfaction guaranteed High Yield Plant Company, McKenzie. Tennessee

STRAWBERRY PLANTS: Earlidawn, Howard 17, Catskill, Sparkle, Robinson, 100-$3.25, 500-$11.00, 1000-$21.00. Gem (Everbearing) 100-$4.00. Washington Asparagus: two year roots, 100-$5.00, 500-$16.00, one year roots, 100-$3.25, 1000-$20.00. Myatts two year Rhubarb roots, 3-$1.50. Horseradish, 12-$1.00. All postpaid. Fred Drew (Nursery), Agawam, Mass.

FLOWERS & BULBS

AFRICAN VIOLETS—Old and new; leaves 10¢ each. Postage 25c Marjorie Card. Edmeston, New York.

DAHLIAS TWENTY assorted three dollars postpaid George Mostert, Delhi, New York.

GLADIOLUS BULBS. 100 large size $4.00. 100 medium size $3.00. Mixed colors. Postpaid. M. Meckler, Box 147, Frankfort, N. Y.

DAHLIAS, HARDY - Old-fashioned. Double, mixed, mostly red. Dozen $1.00, postpaid through May Marsha Snyder. Lisbon, N. Y.

FOODS & FRUITS

POPPYSEED; SHELLED Pecans, Walnuts, Brazils $1.25 pound! Peerless, 538AA Centralpark, Chicago 21.

PLASTIC FILM

PLASTIC: TWO CLEAR 9x12'—$1.50. Triple weight tarpaulin 9x12' $2.00. Black $2.50. 9x20—$3.25. Black $4.00. Postpaid. Catalog. Adval, Box 439E, Hackensack, N. J.

NURSERY STOCK

SPECIAL OFFER—1000 healthy 3 year 8-16 inch Austrian Pine, French, Spanish, Austrian Scotch Pine or Norway Spruce $25.00. Colo. Blue, 6-10 inch $35.00. Free Planting Guide and price list. Hill Crest Nursery, Box 723A. Indiana, Pa.

CULTIVATED BLUEBERRY Bushes, six 18-30" $5.95; ten 10-18" $7.50, postpaid. Morningbrook, Monson, Mass.

50 EVERGREENS $3.75—Scotch and Austrian Pine, Norway, White and Black Spruce — Graded 10"—14", Engleman Spruce, Douglas Fir, Blue Spruce 6"—12" Specify kind. Request free price list and planting guide. Special on White Spruce. Menoher's Nursery, Union City, Pa.

TREES-SHRUBS from seeds: with our simple instructions. Profitable and interesting. For home landscaping timber, nursery, conservation etc. Catalog. Mellinger's. North Lima 42. Ohio.

AGENTS WANTED

EVERY FARMER a prospect for our No Hunting Signs Good profit, excellent sideline. Write Signs, 54 Hamilton. Auburn, N. Y.

SENSATIONAL NEW longer-burning light bulb. Amazing free replacement guarantee — never again buy light bulbs. No competition. Multi-million dollar market yours alone. Make small fortune even spare time. Incredibly quick sales. Free sales kit. Merlite (Bulb Div.). 114 E. 32nd, Dept. C-74T, New York 16.

BUSINESS OPPORTUNITIES

FRUIT AND VEGETABLE stand that takes in $3,000.00 weekly. Right in the middle of six acre vegetable garden on main highway, (Route #13) Back of this is another 15 acre cash crop garden and 20 acres of prime producing apples, pears and peaches from earliest to latest varieties. Owner retiring. Albert Violette. Lunenburg, Mass.

FOR SALE, CHRISTMAS Tree Plantation, 300 acres, 5,000 Scotch Pine ready far fall market, terms. E. Herrick, Margaretville, N. Y. Delaware County.

GAS STATION & STORE with living quarters, good location. Retiring. Box 514-SU. American Agriculturist, Ithaca, New York.

NEED CASH? EARN it raising fishworms! Write, Oakhaven-6, Cedar Hill, Texas.

NEW & USED EQUIPMENT

AUTOMATION SPECIALISTS serving the better dairymen of the Northeast for over 15 years, milking systems, bulk milk tanks and side opening coolers, barn cleaners, silo unloaders, silos, metal buildings. Livestock taken in trade and also livestock for sale. Nold Farm Supply, Rome, New York.

WANTED — ALLIS-CHALMERS Roto Balers. New or used. Give price and condition. Brice Creesy, Andover, Ohio. Phone 3319.

NEW MASSEY-FERGUSON and Cockshutt equipment. Also largest selection of good used tractors and machinery in Northern New York State. Tractors from $65.00 up. Write or phone. Wanted AC balers, will buy or trade. Will deliver. Phone Lowville 85; Ingersoll's Farm Supply, Martinsburg, New York.

WANTED: DEALERS to handle line of bunk feeders or self-unloading wagon boxes, platform and grain boxes, wagons, spreaders, etc. Address inquiries to Box 514-OC, American Agriculturist, Ithaca, N. Y.

FOR SALE—FARM machinery and tractors, construction and garden equipment and autos and trucks. Write or phone your needs to Phil Gardiner Ten Acres Machinery, Mullica Hill, N. J., phone GRidley 8-6291, or visit us. Baler twine—money back guarantee, $5.95 per bale. Buying and selling recent model tractors and jeeps.

KING-SIZE COMMERCIAL tillers—2 Seaman-Andwall Pulvi-Mixers, GM Diesel Engines, power steering, good rubber. Ideal for agricultural, landscaping and construction applications. These are large wheel tractors with built-in rotary tillers. Will sell for less than cost of good tractor alone. Write, call, or wire L. B. Smith, Inc., Court Street Road, Syracuse 6, New York, telephone HE 7-2611.

NYLON AIRCRAFT Tires for farm use, 14-15-16 inch. Dealer inquiries invited. Write Kepler Supply Inc., Fayetteville, N. Y

3hp HOEING MACHINE. Hoes between plants, rows. Depth adjustable 0-6", Women operate easily. Self propelled. Month trial. Year warranty. Discount. Autohoe, West De Pere 9 Wisconsin

WANTED: USED SAW MILL machinery, saw, planer, etc. A. Koleoglou, 558 Anderson Street, Baldwin, Long Island, N. Y.

IRRIGATION SYSTEM. Used less than eight hours. Chrysler motor-Marlow pump unit. Six Sprinkler. 2500 ft. 3-4&6" aluminum pipe. Violette Orchards, Lunenburg, Mass..

SIX AC-G, WD45 wide axle 300 hrs., 2 Moline 335, 2 Oliver 88, 2 Oliver 77, 2 Oliver 66, M.H. Pony, Cubs, Fords with loaders and backhoes. 240 IHC with loader, WD with New Idea loader 500 hrs. $1650., 100 used balers all makes $200 up. Owatonna windrowers 10 or 12 ft., forage boxes wide selection, dryer units and wagons $200. up. Don Howard, Canandaigua, N. Y. Largest selection parts, service.

DOZER BLADE 6/2, Angle & Cant, attachments for Army 4/4 $100. F. A. Burridge Bethel, Vt.

10-TON TRUCK Hoist $199.99—$50 down. Can use agents. Dunbar, 2920 Pillsbury, Minneapolis 8, Minnesota.

TARPAULINS

CANVAS TARPAULINS—Direct from factory—nylon reinforced eyelets, medium weight. Cut size—7x9 feet, $5.67; 8x12 feet, $8.64; 12x14 feet, $15.12. Write for complete list of sizes and samples. Our 67th year. Eureka Tent & Awning Co., Inc., Binghamton, New York.

GARDEN SUPPLIES

PROTECT YOUR BERRY Crops . . . Vegetables. Cheesecloth 100 yards by 39", convenient 10-yard lengths. $7.50 prepaid. 50% less mill price. Joseph Hein, 120F Eton Road. Thornwood, N. Y.

WOOL

SEND WOOL TO us for beautiful, warm blankets. Free literature. West Texas Woolen Mills. 443 Main. Eldorado, Texas.

SEND YOUR WOOL to the blanket mill for nice warm blankets, comfort batting and knitting yarn. Write for particulars. Shippensburg Woolen Mill, Shippensburg, Pa.

BOOKS

BOOKS PERMANENTLY wanted. Histories of cities, counties, and states. Family histories, maps, agriculture and Civil War books. Civil War posters and colonial documents. Give author, title, publisher, date and condition. Fair price and prompt payment. Send information to Archives Book Store, 137 Main Street, Matawan, New Jersey. File A.

MAPLE SYRUP

MAPLE SYRUP, BUTTER, fancy candies. Reasonable prices. Elliotts. New Kingston. New York.

MISCELLANEOUS

STOP ITCHING. Promotes healing of piles, psoriasis, eczema, "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed. 3 oz. $1.00 postpaid. Roberts Pharmacy, Lisbon Falls, Maine.

"TOBACCO": SMOKING (ready-mixed) or chewing (sweet), 5 pounds $3.00 postpaid. Fred Stoker. Dresden, Tennessee.

QUICK-JOHN FOR septic troubles, outdoor toilets. New, exclusive enzyme-bacterial formula digests solids, grease, paper, etc. Ends backups, odors, pumping, dipping. Harmless to plumbing. Six treatments in handy flush packets, $2.50 postpaid. 12, $4.50. Money back guaranteed! Ryter Co., Mardelia 20, Minn.

HOW TO TRAP Sparrows and starlings with famed "Black Lily" elevator traps. New information everybody should have. It's free. Simply address, Sparrowtraps, 504 Detroit Lakes, Minnesota

RUBBER STAMPS—Labels, Printing, Grafting Kits. Kennedy Portraits. Mailbox Nameplates. Catalog. Champlain Industries. Hinesburg, Vermont.

PARTY GAMES. Children's, Adult's. Two sixty page books 50¢ postpaid! Book Nook. 5040-2 North Elkhart Avenue, Milwaukee 17. Wisconsin.

FREE! FREE! A useful $1.00 value gift. Plus our big new bargain catalog. $1.00 Refundable. You can't lose Baldwin's Box 257-A, Norristown, Penna.

NEW FREE FOLDER of primitive and colonial furniture hand finished by Vermont craftsmen Vermont Treeforms, Inc., Groton, Vermont

FOR SALE: Emery Thompson 5 gal. ice-cream freezer and hardening chest. Nearly new. Both stainless steel. Condition excellent. Priced to move. Douglaston Manor Farm, Pulaski, N. Y

PAINT, OUTSIDE Titanium Lead and Oil. Guaranteed not to peel. $5.95 value. Factory price $2.25 gal. Free sample. Snow White Paint Co., AA, Toledo 2, Ohio.

AFRAID OF LIGHTNING? Don't be—call us for free inspection. Survey and exact cost on complete lightning rod service. Morse-Collins Inc., 148 Coddington Road, Ithaca, N. Y Phone 4-0445.

WANTED 1960 Crew Leaders to do rural surveys your county. Century System, 972 Cliff St., Ithaca, New York.

SADDLES—HORSE and pony equipment at big discounts. Send 50c for catalog and prices. Diamond K Ranch. Waterville, N. Y.

WANTED TO BUY

WOOL, SHEEPSKINS, legal furs, Ginseng, 56th year. Shipments or personal deliveries solicited. Keystone Hide Co., Lancaster, Pa.

PERSONAL

TWO "WILL FORMS and "Booklet on Wills." $1.00 complete. Brennan's, Voorheesville, N. Y.

FISHING

FARM-POND-FISH-Traps. Traps for birds; animals. Shawnee. 3934E Buena Vista. Dallas 4, Texas.

SIGNS

NO HUNTING SIGNS any material, lowest prices. Free sample—catalog: Signs, 54 Hamilton, Auburn, New York. Dept. G.

DURABLE PLASTIC Posted Land Signs. Free samples. Minuteman, Stanfordville, New York

NO TRESPASSING SIGNS. Free samples, prices. Cassel, 65 Cottage, Middletown, N. Y.

HONEY

OUR FAMOUS HONEY; plus fabulous New Recipe Book enclosed with any honey package for 20¢. New York's finest clover—5 lb. pail $1.95; case 6—5 lb. pails $9.98; above post paid 3rd zone. 1—60 lb. can $10.80; 2—60's $21.00; 5 or more 60's $10.20 ea. Delicious Wildflower (Wild Raspberry) 1—60 lb. can $10.20; 2—60's $19.80; 5 or more 60's $9.60 ea. All 60's FOB. Sold by ton or pail. Howland Apiaries, Berkshire, New York.

GOVERNMENT SURPLUS

BOLT AND NUT assortment N.F. and N.C. thread—Hexhead assorted sizes ¼ to ⅞ to 6 inches long $15.00 per 100 pounds. FOB. quality guaranteed. Check with order. Rolling Equipment Co., 1125 Military Rd., Kenmore 17, N.Y.

NAILS — GALVANIZED 1½ to 2½ with ½ heavy head used for nailing corrugated steel. $10.00 per 100 pounds. Check with order. Rolling Equipment Co., 1125 Military Rd., Kenmore 17, New York.

JEEPS $278, AIRPLANES $159, boats $7.88, generators $2.68, typewriters $8.79 are typical government surplus sale prices. Buy 10,001 items wholesale, direct. Full details, 627 locations and procedure only $1.00. Surplus, Box 789-C2, York, Penna.

PULLEY BLOCK & tackle, never used, heavy duty weighs 11 lbs. With hook and becket, takes up to 1 inch Manila, 6"x17". Post paid $3.95. Check or M. O. Nylon, 441t. 400lb. test with snap hook and automatic tightener, unused fine for hunters, boatmen, dog-check, farm use. Post paid $1.95. Check or M.O. to Bob Finnell, Commerce Bldg. Erie, Pa.

SILOS

AUTOMATIC FEEDING saves time and hard work. Feeding mechanically with the Silo-Matic Unloader. "Scru-Feed'n Bunk Conveyor and Pro-Met'r concentrate dispenser. Proven equipment guaranteed. Free pictures and plans. Dealer inquiries invited. Write Van Dusen & Company, Inc. Dept A Wayzata, Minn.

SILOS—FACTORY CREOSOTE Treated Wood. Maximum insulation against frozen ensilage and absolute acid resistance. Dependable lock doweled wind-resistant construction. Immediate delivery. Box BS-52, Unadilla Silo Co., Unadilla, New York.

BUILDING? INVESTIGATE 2-IN-1 Bargain if building a barn or shed and a silo. Creosoted dowelled wood silos and glue laminated wood rafters. Unadilla Silo Company. Box BA-52, Unadilla, New York.

STAMPS & COINS

OLD COINS WANTED. Illustrated Catalog 25c Hutchinson's, Box 6256, Philadelphia, Penna.

25 LARGE AMERICAN Commemoratives 10c. Accompanying approvals. Free perforation gauge. Linstamps, St. Catharines 111, Ontario.

327 WORLDWIDE DIFFERENT 25c. Bargain approvals Niagara Stamps, St. Catharines 211, Ontario.

103 DIVERSIFIED BRITISH Commonwealth 10c. Approvals included. Crown Stamps, Virgil 611, Ontario.

BUILDINGS

STEEL BUILDINGS. Shenango, America's finest and most economical building. Engineered to suit your specific needs. Up to 60 feet clear span. 20% more usable space. Serving both agriculture and industry For free information write or call M. W. Lidstone, P. O. Box 92, Southfield Massachusetts. Telephone SHeffield, Mass 229 3139.

ALL STEEL BUILDINGS designed especially for every farm use, now available as low as .94¢ per sq. ft. Completely new "Tapered Beam" design opens new field for superior farm building construction. Most standard buildings can be erected complete in 1 to 3 days with ordinary farm tools. Ask your local barn builder or write direct. A few good territories available to barn building contractors or supply distributors. Atlantic Steel Products. Box #208. Avon New York.

(Continued on Page 28)

German Farmer, 30 years, Catholic, married, fully apprentice-trained in Germany, 6½ years experience as farm manager in Southwest Africa, working knowledge, of English, seeks employment in the U.S.A Please write

Hans Albrecht, Alter-Kirchweg 32, Langenfeld/Rhld., West Germany

Why "Good-Time Charlie" Suffers Uneasy Bladder

Such a common thing as unwise eating or drinking may be a source of mild, but annoying bladder irritations—making you feel restless, tense, and uncomfortable. And if restless nights, with nagging backache, headache or muscular aches and pains due to over-exertion, strain or emotional upset, are adding to your misery—don't wait—try Doan's Pills.

Doan's Pills have three outstanding advantages—act in three ways for your speedy return to comfort. 1—They have an easing soothing effect on bladder irritations. 2—A fast pain-relieving action on nagging backache, headaches, muscular aches and pains. 3—A wonderfully mild diuretic action thru the kidneys, tending to increase the output of the 15 miles of kidney tubes. So, get the same happy relief millions have enjoyed for over 60 years. Ask for new, large, economy size and save money. Get Doan's Pills today!

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

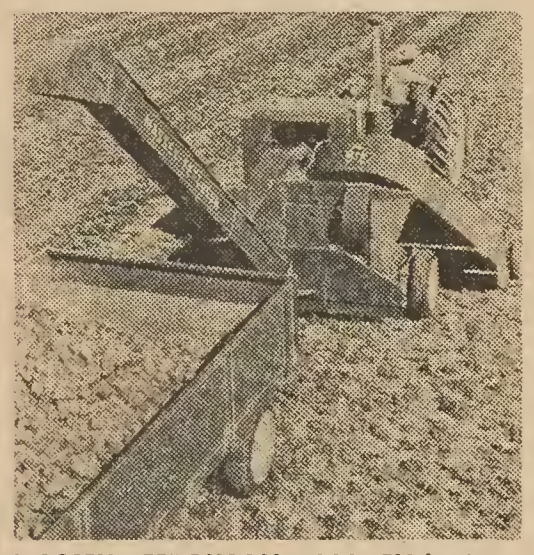
This substance is now available in *suppository or ointment form* under the name *Preparation H®*. At all drug counters.

With AMERICAN AGRICULTURIST Advertisers



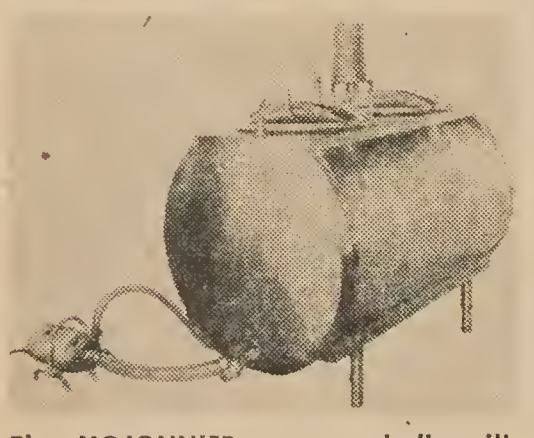


Three generations of the Webster family of Lawrence, Massachusetts. Founded in 1868, the H. K. Webster Company is one of the largest producers of poultry and dairy feeds in the Northeast. Seated, left, D. K. Webster, Jr., Chairman of the Board; right, Walter N. Webster, president. Standing, left, D. K. Webster III, vice president in charge of sales and treasurer; right, R. Kingman Webster, vice president in charge of production. The portrait is of the Company's founder, H. K. Webster.



MASSEY - FERGUSON, 666 Fifth Avenue, New York 19, N. Y., has a new development in their implement line.

The company's new Haypacker is the key part of a whole new system whereby hay can be cut, dried, packaged, loaded, stored and fed completely by mechanical means. This machine compresses hay into 2" x 2" wafers and deposits them in the trailing wagon. The wafers are easily stored and make desirable feed for hay-consuming livestock.



The MOJONNIER vacuum bulk milk cooler features all-stainless steel construction, a unique flat deck design, positive cover latching, bonus capacity, automatic cleaning, economical cooling and "dairy plant milk protection" right on the farm.

The Model 200 VG pictured is designed to meet the needs of dairymen with smaller herds and occupies minimum space.

For more information about this and other models, write Dept. AA, Mojonnier Bros. Co., 4601 Ohio St., Chicago 44, Illinois.

Custom Rates for 1962

Courtesy of Doane's Agricultural Service, St. Louis, Missouri, are these custom rates for the Northeast. They hide much local variance, but serve as handy guides:

Plowing and Cultivating

Job	Per	Rate
Plowing, moldboard plow		
Spring	Acre	$4.60
Fall	Acre	5.00
Sod	Acre	5.25
Plowing, disk plow	Acre	4.50
Disking tandem	Acre	2.50
Offset	Acre	2.50
Disking, with harrow	Acre	2.50
Harrowing		
Spike tooth	Acre	2.00
Spring tooth	Acre	2.25
Cultivating		
Sweep cultivator	Acre	2.00
Rotary hoe	Acre	1.90
Weeder	Acre	1.50
Stalk cutter, power takeoff	Acre	2.85
Cultipacker	Acre	1.60
Pulling bush and bog	Acre	4.50

Planting and Drilling

Corn Planting		
Without fertilizer	Acre	$2.15
With fertilizer	Acre	2.75
Drilling small grain		
Without fertilizer	Acre	1.75
Without fertilizer, with seed	Acre	2.00
With fertilizer	Acre	2.30
With fertilizer and seed	Acre	2.50
Drilling soybeans	Acre	1.80
Other beans	Acre	1.75
Planting potatoes	Acre	5.75

Spraying

Spraying, all (average)	Acre	$2.70
Spraying weeds with 2,4-D	Acre	2.75
Spraying for spittlebug or alfalfa weevil	Acre	2.40
Spraying potatoes	Acre	3.30
Vegetables	Acre	3.40
Tree fruit	Acre	8.75
Spraying cattle	Head	.55

Hay and Silage Making

Field chopping silage:		
Chopper and blower with:		
1 man, 2 wagons, 1 tractor	Hour	$10.50
2 men, 2 wagons, 2 tractors	Hour	14.75
2-4 men, trucks, 2 tractors	Hour	17.00
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Twine	Bale	.12
Wire	Bale	.14
Round	Bale	.10

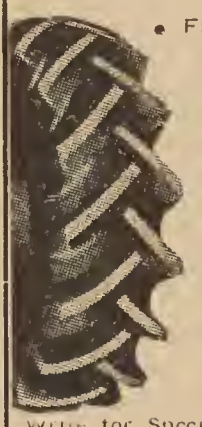
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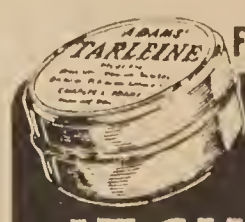
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(Continued from Page 27)

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Low Moisture "Grass" Silage

(Continued from Page 18)

utor was used while filling, although some leveling off was done each evening. The silo was not capped off after filling because it was being used all the time for summer feeding, even during filling. No special sealing was done on silo doors.

He reports that haylage really packs down, says they put the crop from 40 acres in the 16' x 45' silo in 1961; in the previous year only 20 acres of direct cut material went in the same space. Their silo unloader has to snort a little when it gets down toward the bottom of the silo.

The Shelmidines most recent annual herd production average is 14,800 pounds of milk, an increase of 20 pounds over the previous year's record.

Encouraged by the results of last year, Don and Clarence plan on using low moisture material for summer feeding from their 16' x 45' silo again this year. They recently bought another farm and also plan to fill its 14' x 40' silo with haylage for summer feeding of heifers and dry stock.

Don also has words of caution about haylage, though. He says, "I do not think haylage is for every farmer. This is something that is only for dairymen who are willing and able to cut early and put in comparatively fast." In his comments, he agrees with the experts that haylage in regular silos is something that has to be put in carefully.

* * *

Raymond Sawyer, Watertown, N. Y., used low moisture silage stored in a 24' x 60' concrete stave silo for summer feeding last year. His is a big outfit—1,000 acres, around 200 milking cows. In the fall, this silo was refilled with corn.

Moisture ranged from 50% up to 70%, averaged around 60% —wilting time varied all the way from two hours to eight hours. The Sawyers have wilted grass silage for years, but the last few years, have been "going down in moisture level." After filling, the silo was capped off with material "close to the mower" and then left to "cure" for two weeks for desirable fermentation. There was very little spoilage, even though no plastic cap was used — just two spreader loads off the top. The silo unloader is reversed and used as a distributor during filling. The chopper is set to cut as finely as possible.

Ray likes summer feeding from the silo, rather than green chopping every day, because the silo supplies a uniform feed. He doesn't like to go back and forth from one kind of forage to another and from one stage of maturity to another. Also, with 350 acres of hay land to get over, he has to keep moving. About 115 acres of early first cutting fills the 24' x 60', giving flexibility to harvest. Baling and chopping go on in different fields all at the same time. A heat drier for hay adds further flexibility — hay (or haylage) can go to the silo or to the drier almost every day.

Ray advises setting chopper so it will cut material short for good packing, comments that if knives get dull (and pieces longer) the silo unloader is apt to have trouble. He reports no spoilage problems and no trouble at getting material to go up the blower pipe. Self unloading wagons deliver a uniform flow to the blower, preventing pipe-plugging bunches.

* * *

Andrew and Thomas Macauley, Mount Morris, N. Y., used haylage with a moisture content of 40%-45% for summer feeding of their 65 milkers in 1961. An unloader in the 12' x 30' wood silo and an auger-equipped 100 foot bunk feeder mechanizes silage handling. This silo is filled with corn silage in the fall.

Mowing and conditioning is the first step for making grass silage; the conditioner also windrows. The chopper, set to cut as fine as possible, delivers to a self unloading wagon (they have two). This combination allowed the Macauleys to fill the silo in 1½ days.

They report no spoilage, even though no special precautions (such as putting grease around doors) were taken. Andrew says, "One visitor commented that this was the first grass silage he'd ever seen that smelled fit for a cow to eat. He's right—it **does** smell almost good enough for a person to eat."

The cows agree; they clean it up in large amounts and milk well. "Their appetites for low moisture silage is as good as for corn silage," Andrew comments.

* * *

Paul Zimmerman, Canandaigua, N. Y., filled the bottom half of one silo in 1961 with low moisture material, varying from 50% moisture up to 65%. He reports no spoilage and says, "From what I've seen, you might better worry about getting it dry enough, instead of being concerned about getting it too dry."

In the top half of the same silo, Paul ran in direct cut material and used a preservative with it. He noticed no marked change in the appetites of his 55 cows when they switched from high (with preservative) to low moisture silage. He's convinced good corn silage can't be topped for feeding dairy cows, refills silos with corn in the fall.

Paul filled another silo with direct cut material last year, but he's planning to use more low moisture silage this year. He says, "There is less weight to handle; cows like it better; and our silo unloader and auger feeder do a better job of handling it. I didn't notice, though, much difference in milk production when we went from feeding direct cut to low moisture material."

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"Come for Cake and Coffee"

by ALBERTA D. SHACKELTON

EVERYBODY loves cake! It is the all-around American favorite for family gatherings, holidays, gala parties —and who ever heard of celebrating a birthday without a cake? Take your choice among the many kinds of butter, sponge, angel, and chiffon cakes, but don't forget to plan on coffee and cake for that friendly, informal get-together. Here are some favorite cake recipes.

ONE BASIC BUTTER CAKE RECIPE
(Makes 8 Different Cakes)

- ½ cup butter
- 1 cup sugar
- 2 egg yolks
- 1 teaspoon vanilla
- 2 cups sifted cake flour
- 2½ teaspoons baking powder
- ½ teaspoon salt
- ½ cup milk
- 2 egg whites beaten stiff

Cream butter and sugar together until light and fluffy. Add yolks one at a time, and beat well after each addition. Stir in vanilla. Sift together the sifted cake flour, baking powder, and salt, and add to the creamed mixture alternately with the milk, and blend well. Carefully fold beaten whites into the batter. Place batter in 2 well greased and floured or paper-lined 8-inch layer cake pans. Bake in a quick moderate oven (375°) about 25 to 30 minutes. Batter may also be baked in a greased and floured loaf pan for 30-40 minutes in a moderate oven (350°) or in greased and floured cup cake pans at 375° for about 20 minutes.

Chocolate Cake. Add 2 squares cooled melted chocolate to the butter, sugar, and egg mixture in the above recipe and use ¼ cup more milk. Fill layers and frost with your favorite fluffy double boiler frosting.

Marble Loaf Cake. Make batter for basic cake above, but add eggs whole to the creamed butter-sugar mixture. Divide batter in half. To one half add 1 square cooled melted chocolate and 1 tablespoon milk. Drop the light and dark batters alternately into greased and floured long loaf pan. Cool and frost with fudge frosting.

Maple-Nut Layer Cake. Substitute light brown sugar for the granulated sugar in the recipe above. Add 1 cup chopped walnuts or pecans to the batter just before folding in the beaten egg whites. Fill layers and frost with maple frosting.

Spice Layer Cake. Make basic cake recipe above but sift with the flour, baking powder, and salt, 2 teaspoons cinnamon, 1 teaspoon allspice, 1 teaspoon nutmeg, and ½ teaspoon cloves. Spread between the layers a cooked raisin filling and frost with mocha or fluffy double boiler frosting.

Silver Layer Cake. Use 3 egg whites but no egg yolks in the above recipe. Decrease baking powder to 2 teaspoons and increase flour by 2 tablespoons. Fill and frost as desired.

Gold Layer Cake. Use 4 egg yolks and no egg whites in the above basic recipe. Decrease butter to ⅓ cup. Increase baking powder to 3 teaspoons. Fill and frost as desired.

Chocolate Nougat Layer Cake. Bake chocolate cake as directed above in 2 layers. Fill with Date filling made by cooking until soft 1 package pitted, cut-up dates with 1 cup water. Add ¼ cup sugar and bring to boil. Remove from fire, add ½ cup chopped nuts, and cool. Frost with fluffy white frosting and decorate with whole nut halves.

ST. HONORE CAKE

This different kind of cake is fun to make, and it may also serve as an occasional birthday cake. Each year in May, France honors the patron saint of pastry makers and bakers, Saint Honore, and concludes the traditional saint's feast by serving "Gateau (French for cake) Saint Honore." This cake is made of a thin pastry round, edged with a ring of cream puff dough, and then topped with a cream filling and miniature cream puffs, each holding a tiny lighted candle. Below is the recipe in modern version, developed by a large test kitchen, and easily assembled with mixes—pie crust, cream puff, and vanilla pudding.

- 2 packages Vanilla Pudding Mix prepared according to package directions and cooled
- 1 package Cream Puff Mix
- 1 stick Instant Pie Crust Mix
- 1 square unsweetened chocolate
- 1 teaspoon butter
- 1 cup confectioners' sugar
- 2 tablespoons toasted slivered almonds

Prepare cream puff mix as directed on the package. Make 16 miniature puffs using a ½ teaspoon measure for each. Bake 15 to 20 minutes in a preheated hot oven (425°). Lower oven temperature to a quick moderate (375°). Meanwhile, prepare pie crust mix as directed on package, and roll into a 9-inch round. Place round on a baking sheet and prick well. Spoon leftover cream puff batter around edge of pastry round. Use a wet spatula or knife to make a smooth 1-inch wide rim. Bake 40 to 45 minutes. Cool.

To assemble the cake. Split and fill tiny puffs with some of the cooled vanilla pudding. Fill center of cream puff and pastry base with remaining pudding, spreading it up over part of the cream puff rim, if necessary. Leave a 1-inch border of the rim uncovered so that miniature puffs may be placed on it.

Make a thin chocolate glaze by melting chocolate with butter over hot water. Remove from water and blend in confectioners' sugar and 2 to 3 tablespoons boiling water. Beat until smooth. Fasten filled puffs to cream puff rim with dabs of glaze. Spoon remaining glaze over tiny puffs, letting it drip onto cream puff rim. Sprinkle with toasted almonds and arrange tiny candles in puffs. Light candles at serving time. Serves 8 to 10.

Note: If you wish, you may use regular recipes for the pastry round, cream puffs, and vanilla or custard pudding.

PECAN LOAF CAKE

- 1½ cups sugar
- ½ cup butter
- 2 cups all purpose flour
- 2 teaspoons baking powder
- ½ teaspoon salt
- 4 eggs
- ½ cup milk
- 1 teaspoon vanilla
- 1 cup finely chopped pecans

Combine sugar, butter, and sifted dry ingredients and mix with the fingers as for pie crust until all ingredients are completely mixed. Add eggs, milk, and vanilla and beat ½ minute at low speed on electric mixer to moisten, and at high speed for 15 minutes, scraping bowl occasionally. Fold in chopped pecans and place batter in a paper-lined tube pan (about 10 inches across) or long loaf pan, and bake in a moderate oven (350°) 50 to 60 minutes, or until a toothpick inserted in center comes out clean, and cake is delicately browned. Let cool in pan about 10 minutes, and then remove cake to wire rack to cool completely. This cake may be frosted with a creamy confectioners' frosting, vanilla flavored, if desired.

FAIRY SPONGE CAKE
(and Variations)

- 3 eggs
- 1 cup sugar
- 1 cup sifted cake flour
- 1 teaspoon baking powder
- ¼ teaspoon salt
- 2 tablespoons lemon or orange juice
- 6 tablespoons hot milk

Beat eggs until very stiff and light colored. Gradually beat in sugar and continue to beat until well blended. Combine the flour, baking powder, and salt and sift together three times. Fold flour mixture into beaten eggs and sugar. Stir in the fruit juice and then stir the hot milk in quickly. Pour mixture into an ungreased medium sized (about 8-inch) tube pan and bake in a slow oven (325°) about 25 minutes or until it tests done. Invert pan to cool. Remove from pan. Frost with orange frosting made by mixing together 1 cup confectioners' sugar, 2 tablespoons butter, 1 egg yolk, ½ teaspoon grated orange rind and just enough orange juice for spreading consistency.

Boston Cream Pie. Follow recipe for Fairy Sponge Cake, using 2 eggs only, 1 teaspoon vanilla in place of the juice, and ½ cup hot milk to which is added 1 tablespoon butter. Place mixture in a 9-inch paper lined pie or eake pan and bake in a moderate oven (350°) about 25 to 30 minutes. Cool about 15 minutes before removing from pan. With sharp knife cut cake into two layers and place between layers a cooled custard filling. To make custard filling, combine ¾ cup sugar, ⅓ cup flour, ¼ teaspoon salt, 2 eggs, and gradually add 2 cups scalded milk. Cook until thickened over low heat. Add 1 teaspoon vanilla and chill thoroughly. Spread thin chocolate frosting over top of cake.

FINGER CAKES

- 2¼ cups sifted cake flour
- 1½ cups granulated sugar
- 3 teaspoons baking powder
- 1 teaspoon salt
- ½ cup soft shortening
- ¾ cup milk
- 1½ teaspoon vanilla
- ½ to 1 teaspoon almond extract
- ¼ cup milk
- 3 egg whites

Sift into large bowl of electric mixer the sifted flour, sugar, baking powder, and salt. Add shortening, the ¾ cup milk, and flavorings. Beat ½ minute on low speed to moisten flour, then on medium speed for 2 minutes, scraping bowl as necessary. Add the ¼ cup milk and unbeaten egg whites, and beat 2 minutes longer. Pour batter into a 13x9x2 inch pan which has been greased and lined with wax paper.

Bake in a preheated moderate oven (350°) about 30 to 40 minutes. Cool 10 minutes in pan, then remove to rack to cool completely. Invert cooled cake on large board, remove paper, and rub off loose crumbs. Trim edges with a sharp knife. Cut cake into quarters. Spread each quarter on bottom side with cake icing of different tint and flavor: pale yellow with lemon, green with mint, pink with almond, etc. Dip a sharp knife into hot water and cut each quarter section into various small shapes as desired—not much over 2 inches in size or 3 x 1 fingers —squares, diamonds, rectangles, triangles, etc.

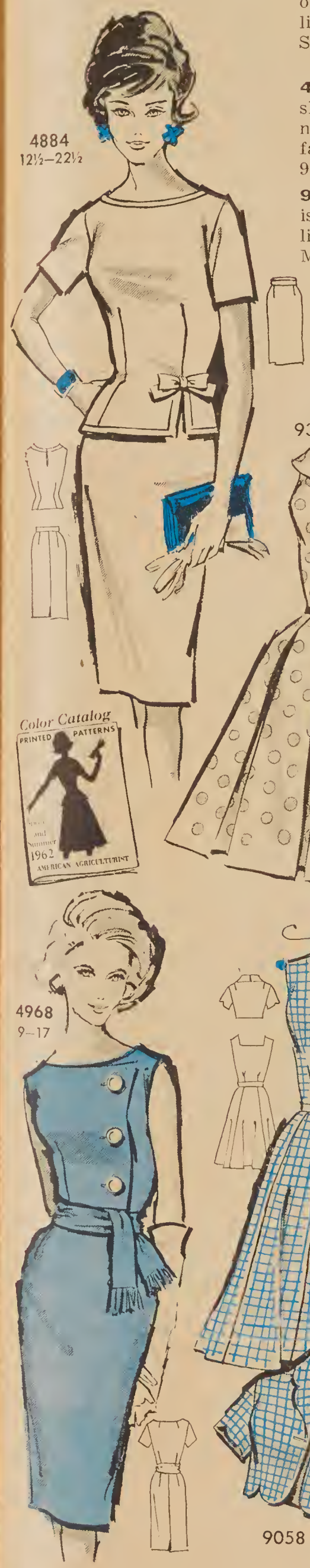
Decorate finger cakes with bits of candied fruits, tiny colored candies, chocolate sprills, nuts, tiny candles, cut citron, plain and tinted coconut, dribbled melted chocolate, sugar flowers, etc. Makes 2 to 3 dozen finger cakes, depending on size.



—Photo: General Mills

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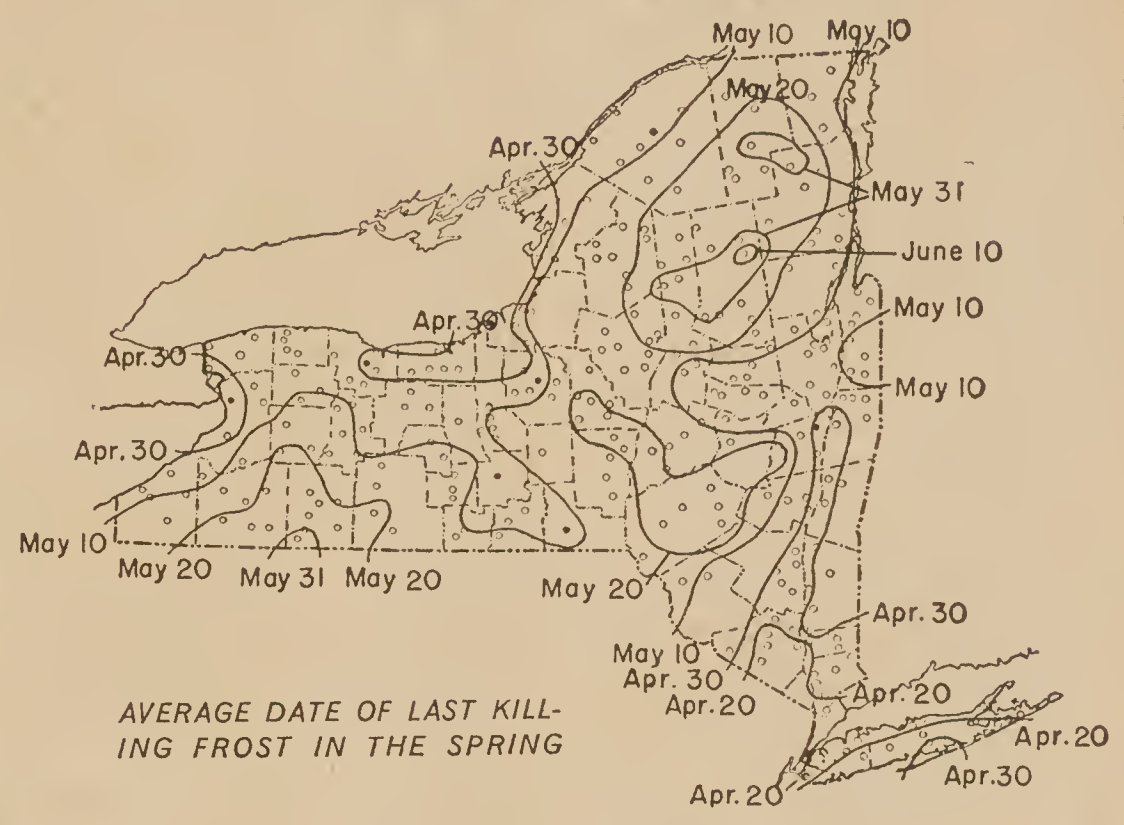
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GLF Quality

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Garden Talk

By NENETZIN R. WHITE

PLANTING: Planting time rolls around again! Let's discuss how to do it properly. If you have beautiful, loamy soil, all spaded up, you're in luck. You need only dig a hole large enough to easily accommodate the roots without crowding them, water well, fill in—being sure to have the plant the same depth that it was in the nursery (look for a line on the plant)—sit back, and enjoy your results.

The biggest "don't" about planting is—**don't put a chemical fertilizer or fresh manure in the planting pockets or trenches.** We see more dead plants resulting from this than from all other causes put together. Now, perhaps you know a gardener who has always used fresh manure or chemicals in his plantings. Yes, it's possible to put these deep in the pocket or trench, cover with a six inch layer of soil, and then plant. This is touchy, however, and water may make one mixed-up mess of the whole thing. If you feel you must put in some fertilizer, use ground bone meal only. This is 100 percent organic, will not burn, and will encourage flowering and fruiting.

Last year a customer lost fifty beautiful plants in about ten days because he thought a little fertilizer was good, so he gave each plant a shovelful of 5-10-5. A small ring of fertilizer may be used on the ground in a circle a few inches from the plants. Be absolutely sure that it is not in contact with the stem, foliage or roots, and that there is no possibility of wind or water putting the fertilizer in contact with the plant itself.

Most of us do not have good, loamy soil, so one of the biggest "do's" is — **do prepare your soil.** Heavy clay needs aeration or permanent loosening in order to make water, nutrients, and above all, air available to the roots. Gravelly soil needs something of this sort to retain moisture and food. Strangely enough, the same thing will help both conditions. This is the incorporation of some oragnic material in the root area, or planting pockets.

We like peat moss, well rotted sawdust, palite, vermiculite, or well rotted compost. These materials need quantities of water for the initial absorbing If you neglect this, they will take moisture out of the plant. Be sure your organic material is well rotted, or it will rob nitrogen from the soil and give your plant chlorosis (yellowing of foliage). When using a material such as fresh sawdust, you must rot it **first.** Put it in your compost pile for a year, or layer it with nitrogen until it is broken down.

Plants such as evergreens that come B&B (balled and burlaped) or potted will need very little pruning. Broken branches should be trimmed with a sharp cut, and any additional pruning that you wish to do for shaping is okay. Bare root plants such as hedge material, some shrubs, etc., should be cut back at least one-third. This is necessary in order to compensate for loss of roots due to damage or drying. You will have a much better plant if you do this at transplanting time rather than later, as branches die. When doing a shrub border, foundation planting, or any area, strip the sod or weeds, and spade up the whole area. It is much easier to get the weeds at this time than when your plants are growing.

LAWNS: Did you fertilize your lawn this spring? Well, you should, you can still do this, and weed at the same time. The absolutely perfect time to apply weed-killers is when apple trees are in blossom. This can be done at other times, but the best anticipated kill is in May. Weed killers can be applied by themselves, but a healthy, well-fed lawn tends to crowd out weeds by itself, so it makes sense to weed and feed at the same time. This costs approximately one dollar extra per 5,000 square feet—really a very inexpensive way to feed your lawn. I feel that dry applications with a fertilizer cart are by far the easiest way to apply your weed and feed, but it may also be applied in a liquid form. When using weed killers in liquid forms, be sure to clean applicators thoroughly in hot soapy water with ammonia added.

VEGETABLES: Last month Mr. Eastman wrote a wonderful article on vegetable gardening, so I will make my comments on the subject brief. I certainly concur with all he said, especially the fact that they stuck to well known varieties and had fun **experimenting** with the new varieties. Do read this article on page 54 of the April issue.

Phil and I have always loved our garden, and we raised two children who have a real love for good fruits and vegetables. Both of them are now married and growing their own fine produce. I expect our grandchildren will enjoy gardening as much as their parents did with us, and as Phil and I did with our parents.

Mr. Eastman said that you come close to God in gardening, and of course this is true. We also find that our garden relaxes us and gives us a feeling of serenity.

One evening, as we came home, Phil decided he would hoe a couple of rows while I got dinner. (Fortunately, I also relax while cooking!) I had just nicely started when Phil came stamping in, and asked if I couldn't wait five minutes until he had finished a row. I showed him that dinner wasn't ready, and wanted to know what he was talking about.

He said, "You whistled, and whistled and whistled, so I finally came in." (My voice doesn't carry well to the garden, and I do occasionally whistle.) We stepped out on the terrace to cool off and continue our discussion. Just then our beautiful, fat cardinal whistled at us from the top of our dogwood! Serenity came with a late dinner that night.



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CUP OF SUNRISE

By Queena Davison Miller

He offered me the sunrise for a cup
And poured his morning song like golden wine.
A new provisioned world was his and mine.
The night was gone. And with the breaking up
Of darkness into faith's prismatic notes
A robin chorus rose in gratitude
For strength of wing, for vibrant air, for food,
Lifting from unseen uncounted throats.

So amplified, dawn echoed in my heart,
A volumned sound that could not be denied.
Suddenly I knew that none could hide
Or arrogantly set himself apart.
One who has drunk of dawn the smallest sip
Finds he has joined a holy partnership.





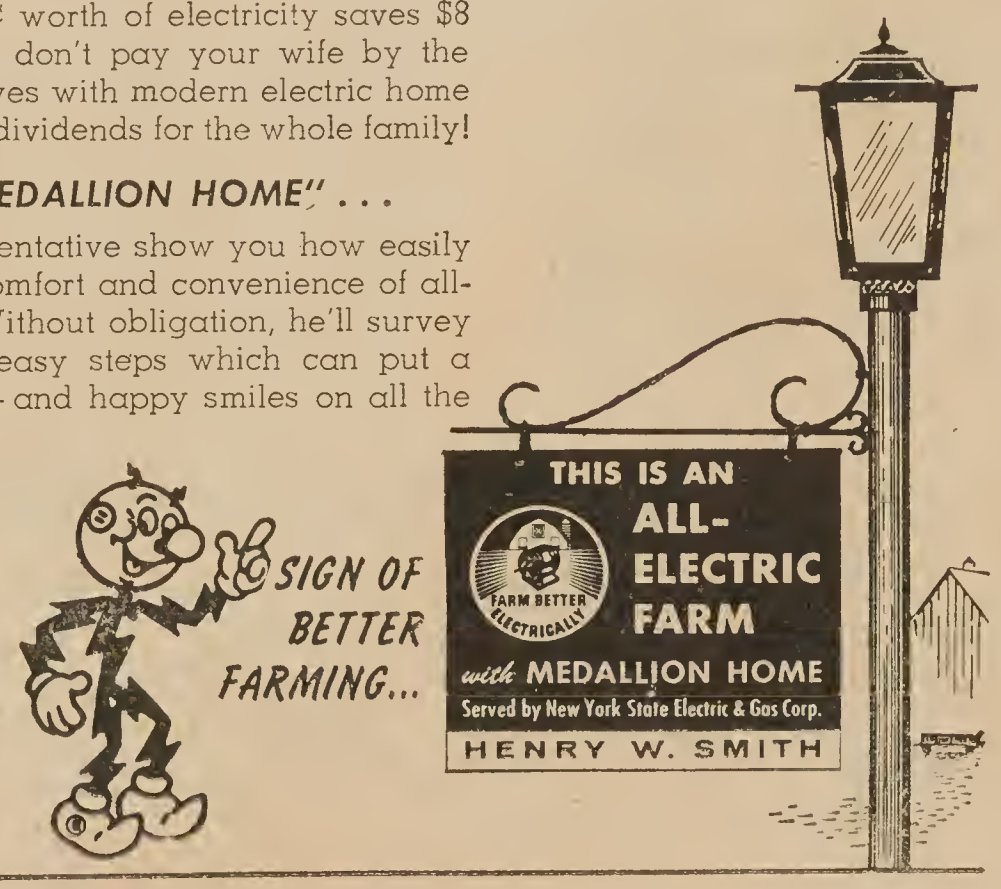
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PRIZE WINNING PIES!

By AUGUSTA CHAPMAN, *Home Editor*

"I WAS, first of all, very surprised, and then pleased and proud to find out that I had won our Pomona Apple Pie Contest," said Mrs. Doris Ossenkop of Mount Hope Grange in Dutchess County. "I consider it an honor for our Grange, and I hope I'll do half as well in the State Contest." Twenty-one Grangers entered pies in the Dutchess Pomona Contest, and we think Mrs. Ossenkop has every right to feel proud that her pie won.

Mrs. Ossenkop and sixteen other County winners are now in line for the finals in the big statewide Grange-American Agriculturist Apple Pie Contest which started last fall in the Subordinate Granges and will wind up this October when State Grange meets in Syracuse. Here is the list of County winners to date:

POMONA WINNERS

COUNTY	GRANGE	WINNER
Allegany	Rushford	Mrs. Cecile H. Bump
Broome	Sanataria Springs	Mrs Silas R. Culver
Columbia	Claverack	Mrs. Anna Mae Miller
Oclaware	Oclaware Valley	Mrs. Fred Weber
Dutchess	Mount Hope	Mrs. Doris Ossenkop
Essex	Adirondack	Mrs. Betty Sayward
Lewis	Petries Corners	Mrs. Thelma M. Erbin
Monroe	Riga	Mrs. James Neal
Rensselaer	Hoosick	Mrs. Sanford W. Hewitt
Schenectady	Duane	Mrs. Jean H. Babcock
Schoharie	Seward Valley	Mrs. Gerald Purcell
Seneca	Rose Hill	Mrs. Bernice Deane
Steuben	Avoca	Mrs. Marion Towner
Tioga	Apalachin	Mrs. Agnes Lillie
Tompkins	North Lansing	Mrs. Fred Beckley
Ulster	Huguenot	Mrs. John Schreiber
Wayne	Macedon	Mrs. Edward Bradley

Mrs. Eleanor Vanderbeck, Chairman of the State Grange Service & Hospitality Committee, says she thinks there's more interest in our 1962 Apple Pie Contest than in any other Grange Baking contest she remembers. It does seem that she's right from the enthusiastic reports we receive from the S & H Chairmen who have charge of the Pomona contests. Here are brief notes from several of them:

Mrs. Mary Hotaling, Columbia County. "Twelve Granges took part in our Pomona Contest. The pies looked just wonderful, and I didn't envy the judges their job."

Mrs. Samuel Graham, Wayne County. "I enjoyed this contest the most of any we have had. We had an awful snow storm the night of our Pomona meeting, so only seven Granges participated. I hope you'll have another pie contest soon."

Mrs. Gladys Jackson, Delaware County. "After the contest we sold the apple pies to make money for our Pomona S & H Committee projects. We selected a member to auction the pies, and everyone seemed to enjoy it."

Mrs. Arthur Klick, Monroe County. "Mrs. James Neal, our winner, is a mother of four children, also grandmother of three. She loves gardening and crafts - is active in Home Bureau, and has been a Grange member for nearly 20 years.

Mrs. Madeleine Allyn, Tioga County. "There was much enthusiasm about the Apple Pie Contest in each of our Subordinate Granges. Our Pomona Contest was held at Halsey Valley as part of the 85th Anniversary observance of Tioga County Grange. We served the pies for dessert at supper time."

Mrs. Dorothy Haley, Rensselaer County. "Mrs. Hewitt has been a member of Hoosick Grange for four years and has taken a very active part in all Grange work. Both she and her husband are also members of Rensselaer Pomona Grange."

Mrs. Belle Snyder, Allegany County. "Twenty-one Granges entered our contest. First prize winner, Mrs. Bump, was Juvenile Deputy for two years. She has two children, helps her husband in G.L.F. feed mill and hardware store and is a grand person to know."

Ulster County's contest had an unusual ending with the Pomona S & H chairman, Mrs. John Schreiber, carrying off first prize. Mrs. Schreiber lives on a dairy farm, has two children, and also teaches first grade in a nearby school. She says apple pie is the family favorite, so she gets lots of practice. The Schreibers' 15-year-old daughter, Judy, won third prize in their Subordinate contest.

The day of the Pomona contest Mrs. Schreiber made her pie before going to school in the morning. She baked it at noontime in a strange oven. (This we learned from Mrs. Gertrude Elliott, the 1961 chairman of the State Grange Service and Hospitality Committee, and a member of Mrs. Schreiber's Subordinate Grange.)



Mrs. James Neal, a member of Riga Grange in Monroe County, pares apples for her prize-winning entry.



Mrs. Sanford W. Hewitt
Rensselaer County



Mrs. John Schreiber
Ulster County



Mrs. Fred Weber
Delaware County



Mrs. Doris Ossenkop
Dutchess County



Mrs. Marion Towner
Steuben County



Mrs. Agnes Lillie
Tioga County



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Ed Eastman's Page

No Tax Cut

IN A RECENT statement, Douglas Dillon, secretary of the United States Treasury, said that the United States cannot afford any cut in our tax bill. Then he added insult to injury by saying:

"Our tax burden really isn't as burdensome as many claim."

That statement, which is the thinking of too many politicians, made me thoroughly mad. Their principal idea is to spend, spend, spend, and, if not stopped, it will plunge this nation into bankruptcy.

It would take a book to list the evil that high government spending, with its resulting taxes, is doing to our country and to all of us. High spending is the chief cause of inflation, which with all of its other evils is robbing the widow and the orphan and older people of their lifelong savings.

Taxation is slowing up, and in many cases has entirely stopped investment of capital to promote business and employment. What's the use of risking capital if a large part of the resulting income must go to the government?

Taxation not burdensome? Today, taxes take 31 cents out of every dollar earned in the United States.

According to my friend Mr. Garth Shoemaker of Elmira, if we consider taxation and inflation (which is largely caused by taxation), the man who earned $5,000 a year in 1940 must earn $14,000 today to break even and pay his increased taxes.

Taxation not burdensome? What about the sad fact that most of us work for months every year to pay taxes before we have anything left to invest in our own business, or to save in order to keep off the relief rolls.

Taxation is not burdensome, Mr. Dillon? What about the time and trouble we all go through every year making out income tax reports?

It should be plain to every citizen that this situation cannot continue without ruining business and the country itself. What can we do about it?

1. **Keep informed about** the appropriations constantly urged by the politicians.

2. **Keep government close to home.** The farther it gets from local control, the more difficult it is to control it.

3. **Let your representatives know** how you feel in no uncertain terms and if they pay no heed, **vote them out of office.**

REMEMBER

TAKE TIME from the automobile ride, the picnic, or the ball game on the 30th day of this month (Memorial Day) to pause and take your hat off in a salute to the war dead.

Without them and the sacrifice they made, we today would be living in a different world. We would not have our country which, with all of its faults, is still to us the best place to live in all the world!

IT PAYS TO ADVERTISE

The codfish lays a million eggs,
While the helpful hen lays one.
But the codfish never cackles
To tell us what she has done.

And so we scorn the codfish,
While the thoughtful hen we prize.
For she confirms the important fact
That it pays to advertise.

BECAUSE of decreasing consumption and steady increasing production of milk, there is strong pressure from the government and others for government control of dairy products.

Unless the dairymen themselves find a constructive approach to this problem, government may tell them how much milk they may produce, thereby losing one more vital step in their liberties.

To me, it seems wrong and tragic that while every other great business advertises its products, dairymen and their organizations have done so little to save their industry from ruin or from government control.

About the only exception to this is the good work of the American Dairy Association and the National Dairy Council. The work of these two organizations is fine—but it is not enough.

Look at the billions of dollars the cigarette industry pours into advertising, thereby maintaining and increasing the use of cigarettes in spite of all the adverse publicity that cigarettes cause lung cancer and other dread diseases.

Cigarettes have so little really to advertise and to sell. Milk has so much. Yet dairymen quibble over a small deduction for advertising, and their organizations fail to agree how it should be done.

If dairymen don't wake up before long, it surely will be too late!

WHAT DID YOU CALL IT?

THERE HAVE been several letters about what the weight was called that was used to tie a horse when there was no hitching post or rail handy.

It was called by several different names including: hitching weight, ground weight, tie weight, and more rarely, horse tie and horse anchor.

The device, made of iron, weighed several pounds and was attached to a rope or strap that could be buckled to the bridle. It was carried in the buggy or wagon and simply put on the ground in front of the horse when necessary to leave the animal for a short time.

EASTMAN'S CHESTNUT

THE REVEREND Ernest A. Droppa, pastor of the First Methodist Church at Little Falls, New York, sends me a chestnut from his church bulletin with the following comment:

"Many of us clergymen subscribe to the American Agriculturist and enjoy its contents. Now, even as earlier in life, I turn to your columns and find so much value in your homey, down-to-earth, true-to-life sort of philosophy. I am sure we are grateful to you for your contribution to a better way of living."

The little Chestnut which Rev. Droppa sent not only is funny but carries with it a lesson about the utter foolishness of the modern philosophy of letting children "express themselves" instead of making them mind.

Here is the story:

A young mother tried in vain to get her spoiled son to eat his meals. As he repeatedly refused to eat what she prepared, she finally asked him **what** he would like. The boy replied:

"I want a worm to eat."

So the father got a worm from the garden. The boy then demanded that the worm be cooked. Then he insisted his father eat half of it which the father reluctantly did. But no sooner had the father eaten his half than the boy let out a tremendous howl and shouted:

"Dad ate the half that **I** wanted!"

May Time Is Seed Time



"And He spake many things unto them in parables, saying, Behold a sower went forth to sow;

"And when He sowed, some seeds fell by the wayside, and the fowls came and devoured them up:

"Some fell upon stony places, where they had not much earth: and forthwith they sprung up, because they had no deepness of earth:

"And when the sun was up they were scorched; and because they had no root they withered away.

"And some fell among thorns; and the thorns sprang up and choked them:

"But others fell into good ground, and brought forth fruit, some an hundredfold, some sixtyfold, some thirtyfold." St. Matthew 13:3-8.

As I read and re-read that wonderful parable, I think not only of the lesson it teaches us about how to live, but also of how much Jesus knew about the basic principles of farming. Jesus, the All Wise, knew the value of good seed, good soil, and good cultivation. He who dwelt so much on miracles knew full well the miracle of seed that is today just as much a miracle as it ever was.

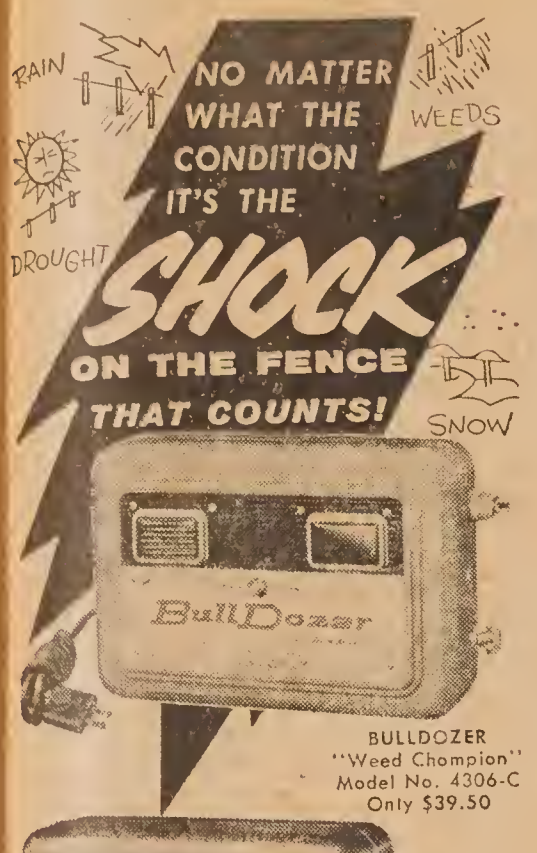
Every true farmer—no matter what the problems, failures, and heartaches of the past, goes forth at seed time to sow again with unwavering faith in what Jesus promised, that the tiny seed that he plants and cares for will bring forth a hundredfold.



—Picture courtesy Prof. John D. Hartman, Cornell University

THE MAGIC OF LIFE

Scientists can tell what a planted seed, like these kernels of corn, will DO, but no one but God knows WHY.



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BULLDOZER – Transistorized 6-volt battery fencer Model No. 4360 Only $49.50

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Service Bureau

STILL OPERATING

A reader from Delaware County has written us:

"A while ago we received in the mail a card, supposedly from a research company. It asked us to fill out the self-addressed, stamped card and return. It had approximately a dozen things to check yes or no, indicating if you had them or not, and a place for name, address, age, size of farm, etc. It suggested that prizes were being offered us on incentive basis to help them get the information. We foolishly sent it in.

"In your November issue, Service Bureau page, a reader described exactly to the $339 the proposition presented to us when a young man came to call on us.

"You can warn your readers that they are operating in New York again. We were nearly taken in and want to warn others. They very cleverly make you believe you have won something and promise to pay back all but $39 of the $339 they ask as security while waiting for you to send in 12 names of recently married couples. After all, the prizes they give to you (and cleverly mark with a stamp PAID IN FULL) are worth $1000 according to their books! Who could turn their offer down? Thank goodness, we did. And thank you for your Service Bureau."

CAN YOU HELP?

If anyone knows the whereabouts of a single barrel 16 gauge shotgun with a 36" barrel, serial number 392855 and with the name "Long Tom" on it, please let us know. The owner offers $5 reward for information.

If you have any old copies of AMERICAN AGRICULTURIST containing stories by C. A. Stephens, will you please contact Miss Louise Harris, 15 Jay Street, Rumford 16, Rhode Island.

Mr. Gordon W. Williams of Camden, N. Y. would like information concerning a small town in N.Y.S called Chicaguill.

Mrs. Charles Cary, 22 Rutherford St., Binghamton, N. Y. would like to borrow or buy the book, "The Cary Family in England."

Will anyone having copies of Edgar Rice Burroughs' books to sell or trade for other books, please get in touch with Mrs. Edward Decker, Cayuta, New York.

Mrs. D. E. Fournier, Bay Rd., Belchertown, Mass. would like the old-fashioned pattern for a "Bear Paw" quilt.

Will anyone who has the words to the poem, "The Kid Who Always Struck Out" please send them to Mrs. L. W. Allen, 12 Pleasant Street, Clifton Springs, N. Y.

ADDRESS WANTED

Do you know the whereabouts of.

Any descendants of Norman Durst who lived in Niagara Falls about 1900.

Lena Mae Bush or Lena Mae Brandt, whose last known address was Oneonta, N. Y.; blonde, blue eyes, age 43, height 5'4". Her daughter is anxious to hear from her.

SUFFERING SERIOUS INTERNAL INJURIES when butted by a ram, Mr. Arthur Sargent of Waterport, N. Y. underwent surgery, spent twenty days in the hospital and then was laid up weeks at home unable to work.

He carried North American policies for many years. Here is how they helped him.

Series 550R—weekly disability and hospital benefits	$ 321.43
Series ME26A—medical expense benefits	1000.00
Total	$1321.43



Local agent, Locklin Norton of Elba, N. Y. delivered checks to Mr. Sargent. This is part of Mr. Sargent's thank you letter:

"One never knows how appreciated these insurance checks are until the time comes when they are needed."

A friend's name may be in this list of claims paid.

Donald Palmatier, Wellsville, N. Y. Fell off steps—fractured heel bone	$ 426.07
Pauline Remmers, Berne, N. Y. Kicked by cow—fractured ankle	307.14
Richard H. Campbell, Little Valley, N. Y. Caught in power take-off—severe chest injury	1390.00
Howard McLoud, Auburn, N. Y. Gored by bull—injured chest, cuts and bruises	671.74
Mary Grisanti, Silver Creek, N. Y. Auto accident—injured back, skull, hands	235.82
Carl Grisanti, Silver Creek, N. Y. Auto accident—fractured rib, injured back	520.00
Robert A. Ettenberger, Elmira, N. Y. Stepped in a hole—injured back	104.00
Fred J. Harrison, Smithville Flats, N. Y. Kicked by horse—injured back and leg	250.00
Leo Provoncha, Mooers, N. Y. Fell off hay wagon—injured back, knee	391.43
Mary M. O'Brien, Homer, N. Y. Fell downstairs—broke elbow, injured knee, cuts and bruises	507.66
Joseph Rosa, Delhi, N. Y. Auto accident—back fracture, bruises	880.00
Emerson Gonyea, Dickinson Center, N. Y. Kicked by cow—broken right leg	280.00
William Vosburgh, Gloversville, N. Y. Stepped in hole—injured leg, knee and calf	197.13
Kenneth Preston, Rochester 15, N. Y. Lawnmower accident—cut toes	391.99
Warren Lanpher, Little Falls, N. Y. Auto accident—fractured cheek bone, rib, cut chin	1124.99
John W. Henderson, Evans Mills, N. Y. Crushed hand against post	157.00
Donald H. Hughes, Turin, N. Y. Stepped on stone, twisting leg—badly injured knee	608.98
Louise E. Brink, Nunda, N. Y. Auto accident—broke collarbone, bruises	264.28
Dean L. Coe, Cazenovia, N. Y. Truck accident—broke ribs, chest and back injuries	924.60
Jacob Snook, McAfee, N. Y. Auto accident—injured head, hip, back	353.57
William Leibeck, Spencerport, N. Y. Run over by tractor—broke shoulder, injured chest, elbow	880.00
Arthur Youker, St. Johnsville, N. Y. Gored by bull—injured shoulder, bruises	1395.70
John Dackowsky, Cassville, N. Y. Foot crushed under wagon wheel	646.39
Robert Billings, Phoenix, N. Y. Truck rack fell on him—fractured vertebra	899.46
Vera Irene Schneeburg, Naples, N. Y. Auto accident—injured spine & neck	918.76
Charles Wallace, Warwick, N. Y. Kicked by cow—broke leg, injured ankle and foot	580.71
James Potter, West Monroe, N. Y. Loading pulpwood—hit in back with wood	235.75
Frederick F. Eack, Onconta, N. Y. Fell on ensilage fork—puncture wound & infection of leg	921.24
Clifford Wells, Gouverneur, N. Y. Crushed by cow—injured back	515.18
Charles Jackson, Sharon Springs, N. Y. Kicked by cow—injured knee & ankle	544.51
Howard Betzler, Lodi, N. Y. Fell—injured shoulder	155.11
Dee Dickson, Bath, N. Y. Kicked in back by cow	454.75
John H. Gemfler, Kenoza Lake, N. Y. Auto accident—broke ribs, injured head	231.78
Gertrude Schumacher, Candor, N. Y. Caught in power take-off—injured both legs	563.31
Lloyd Cotterill, Dryden, N. Y. Fell—injured spine and right leg	1099.30
Stanley H. Allaart, Walworth, N. Y. Fell off dock—cut head, injured knee	891.50
Paul A. Joller, Attica, N. Y. Hay conveyor collapsed—crushed foot	519.36
Robert B. Spence Jr., Dundee, N. Y. Crushed by cow—hand cut & bone broken	180.00
Lewis B. Ashley, Wellsboro, Pa. Fractured leg near hip	858.06
Jennie M. Boardman, Friendville, Pa. Thrown from tractor—injured hip, knees and legs	125.00
Robert Finch, Nelson, Pa. Jack slipped and car fell on head—head injuries	672.90
Howard Garber, Pittsfield, Pa. Can of tar blew up in face—burns of eyes	205.72
Angelo Tomarchio, Harrisonville, N. J. Fell from truck—injured back	230.00
James E. Mooney, Sussex, N. J. Fell from silo—broke ankle	252.34
John Winzinger, Old York Rd., N. J. Crushed by cow—injured side, ribs	205.72
Giacinto DiGregorio, Old Bridge, N. J. Hit by car—severe injury to hip and thigh	1692.86

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING ITHACA, NEW YORK

SPECIAL OFFER TO NON-DRINKERS!!
HOSPITALIZATION AT REDUCED RATES

Pays $100.00 Weekly from First Day for Life to Readers of AMERICAN AGRICULTURIST

NO WAITING PERIODS * ONLY YOU CAN CANCEL NO AGE LIMIT * NO SALESMAN WILL CALL

If you are the one American in four who does not drink, the Gold Star Total Abstainers' Hospitalization Policy will pay you $100.00 a week in cash, from your first day in the hospital and will continue paying as long as you are there, even for life!

If you do not drink and are carrying ordinary hospitalization insurance, you are of course helping to pay for the accidents and hospital bills of those who drink. Alcoholism is our nation's #3 health problem, ranking immediately behind heart disease and cancer! With the GOLD STAR PLAN you are not called upon to help pay the high bills for the ailments and accidents of those who drink. GOLD STAR rates are based on the SUPERIOR HEALTH RECORDS of Non-Drinkers!

READ WHAT A BLESSING THIS PROTECTION HAS BEEN TO OTHERS

Mr. Carman McEwen, Malone, New York: "I certainly appreciate the prompt action in payment of my claim for my recent hospitalization."

Mr. George R. Lamey, Titusville, Pennsylvania: "I am very well pleased with your payment on my claim. My policy had been in force just one month when I was taken ill."

Mr. Clyde A McMillon, Marion Center, Pennsylvania: "This was my first trip to a hospital, and it came very unexpectedly I appreciate the fine service of your company. I can recommend your group and service most highly."

Mrs. Marguerite Joslyn, Auburn, New York: "Thank you for my checks. The last one came today. I can truly say I am glad to recommend the Gold Star policy to anyone. Even though my policy was in effect less than a month, I received full payment for the time I was in the hospital."

Mr. Lewis M. Oster, Junction, Maine: "This will acknowledge receipt of your generous check a few days ago covering my recent disability and enforced hospitalization. To become associated with your fine organization only recently and then to find myself compelled to report my first sickness just a month later, certainly was an embarrassing experience. But, as we all know sickness and accidents rarely give warnings. Please accep. my deepest appreciation for your very speedy and generous settlement of my claim."

Mr. & Mrs. Robert W. Nelson, Leicester, Massachusetts: "We certainly appreciate your promptness in approving this claim and sending a check. We had searched for this type of policy which would be adequate, yet within our means."

For the first time, you can get the newest and most modern type of hospitalization coverage at unbelievably low rates, because the Gold Star Policy is offered only to non-drinkers. And your low Gold Star premium can never be raised because you have grown older or have had too many claims. Only in the event of a general rate adjustment up or down for all policyholders can your rate be changed!

One out of every seven people will spend some time in the hospital this year. Every day over 64,000 people enter the hospital—47,000 of these for the first time!

LOW RATES FOR NON-DRINKERS

With a Gold Star Total Abstainers' Hospitalization Policy, you receive $100.00 per week in cash, as long as you remain in the hospital, starting from your very first day there, for either sickness or accident. If your hospital stay is less than one week, you still collect at the rate of $14.29 per day. Even if you are already covered by another policy, the GOLD STAR PLAN will supplement that coverage, and will pay you directly, in addition to your present policy. And your benefits are tax-free!

This wonderful, generous protection costs only $4 a month for each adult, age 19 through 64, or $40 for twelve full months. For each child under 19, the rate is just $3 for a month's protection. And for each adult of age 65 through 100, the premium is only $6 a month, or $60 for a full year.

And remember, with Gold Star, the NO LIMIT Hospital Plan, there is NO LIMIT on how long you can stay in the hospital, NO LIMIT on the number of times you can collect (and the Company can never cancel your policy), and NO LIMIT on age!

Compare this plan with others. We welcome comparison because the GOLD STAR PLAN pays from the very first day (we can't pay any sooner); and it pays forever . . . as long as you remain in the hospital (we can't pay any longer!).

MONEY-BACK GUARANTEE

We'll mail your policy to your home. No salesman will call. In the privacy of your own home, read the policy over. Examine it carefully. Have it checked by your lawyer, your doctor, your friends or some trusted advisor. Make sure it provides exactly what we've told you it does. Then, if for any reason whatsoever you are not fully satisfied, just mail your policy back within ten days, and we'll cheerfully refund your entire premium by return mail, with no questions asked. So, you see, you have everything to gain and nothing to lose.

This is the same **GOLD STAR PLAN** as offered in the following leading publications.



- American Agriculturist
- Capper's Weekly
- Dakota Farmer
- Farm Journal
- Farm & Ranch
- Farmer Stockman
- The Farmer
- Grit
- Life & Health
- National Livestock Producer
- Prevention
- Reader's Digest
- Rural New Yorker
- Workbasket





This plan offered exclusively by

DE MOSS ASSOCIATES, Inc.
VALLEY FORGE, PENNA.

"Special Protection for Special People"

Check These Remarkable Features:

- Only YOU can cancel.
- Good anywhere in the world!
- Pays *in addition to* any other hospital insurance you may carry.
- All benefits paid directly to you in cash—tax free!
- Claim checks are sent out Airmail Special Delivery!
- No age limit.
- Immediate coverage! Full benefits go into effect noon of the day your policy is issued.
- No limit on the number of times you can collect.
- Pays whether you are in the hospital for only a day or two, or for many weeks, months, or even years!



- No policy fees or enrollment fees!
- Ten-day unconditional money-back guarantee!
- Every kind of sickness and accident covered except, of course, hospitalization caused by use of alcoholic beverages or narcotics, pre-existing conditions, pregnancy, or any act of war. Everything else IS covered.

HERE ARE YOUR GOLD STAR BENEFITS

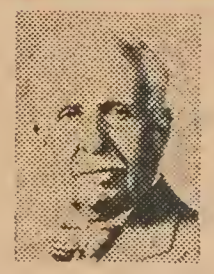
Pays $100.00 weekly for life while you are in the hospital.

Pays $2,000.00 cash for accidental death.

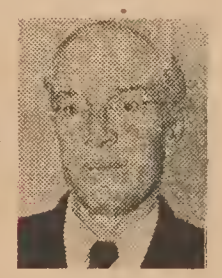
Pays $2,000.00 cash for accidental loss of one hand, or one foot, or sight of one eye.

Pays $6,000.00 cash for accidental loss of both hands, or both feet, or sight of both eyes.

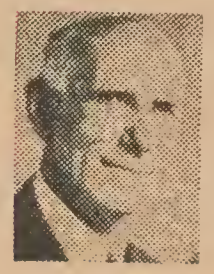
OUTSTANDING LEADERS SAY—



J. C. PENNEY, Noted philanthropist, Founder of the J. C. Penney Company: "I have a sincere conviction that liquor is one of the chief causes of unhappiness both to the people who drink and to those who are near and dear to them. Early in my life I decided not to touch liquor. I am delighted to know of the DeMoss Gold Star Total Abstainers' Plan that provides a premium rate so much lower."



UPTON SINCLAIR, Pulitzer Prize author: "I think your idea of giving people the insurance discount which they earn by not shortening their lives with alcohol is a brilliant one, and I am glad to be counted in on it."



DR. FRANK C. LAUBACH, Author, preacher, former missionary, and internationally known authority on literacy: "All my life it has seemed to me that people who take good care of themselves and do not burn the candle at both ends should not be charged the same premiums for insurance as those who are killing themselves by intemperance. This Gold Star Total Abstainers' Policy seems to be exactly what people who do not drink ought to have."

HERE'S ALL YOU DO:

1. Fill out application below.
2. Enclose in an envelope with your first payment.
3. Mail to De Moss Associates, Inc. Valley Forge, Pa.

You will receive your GOLD STAR POLICY promptly by mail.
No Salesman will call.

APPLICATION FOR

Gold Star Total Abstainers' Hospitalization Policy

My name is _____ 0-1-0251-052

Street or RD# _____

City _____ Zone ____ State _____

Date of Birth: Month ____ Day ____ Year ____ Height ____ Weight ____

My occupation is _____

My beneficiary is _____ Relationship ____

I also apply for coverage for the members of my family listed below:

NAME	AGE	HEIGHT	WEIGHT	BENEFICIARY
1.				
2.				
3.				

To the best of your knowledge and belief, have you or any person listed above ever had high or low blood pressure, heart trouble, diabetes, cancer, arthritis or tuberculosis or have you or they, within the last five years, been disabled by either accident or illness, had medical advice or treatment, taken medication for any condition, or been advised to have a surgical operation? Yes____ No____

If so, give details stating person affected, cause, date, name and address of attending physician and whether fully recovered: _____

Neither I nor any other person listed above uses alcoholic beverages, and I hereby do apply for a policy with the understanding that the policy will not cover any conditions existing prior to the issue date, and that it shall be issued solely and entirely in reliance upon the written answers to the above questions.

Date: _____ Signed: X _____

FORM GS 713-3

HERE ARE THE LOW GOLD STAR RATES

	IF YOU PAY MONTHLY	IF YOU PAY YEARLY
Each adult age 19-64 pays	$4.	$40.
Each adult age 65-100 pays	6.	60.
Each child age 18 and under pays	3.	30.

SAVE 16 2/3% BY PAYING YEARLY!

THE GOLD STAR PLAN is underwritten by the following leading companies (depending upon your State of residence):

OLD SECURITY LIFE INSURANCE COMPANY
Kansas City, Missouri

WORLD MUTUAL HEALTH & ACCIDENT INS. CO. OF PENNA.
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MAIL THIS APPLICATION WITH YOUR FIRST PREMIUM TO **DE MOSS ASSOCIATES, INC. VALLEY FORGE PENNA.**

Founded 1842

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

JUNE 1962



Look at old "Empty Belly" grabbing off a few tidbits along the roadside! Is it lack of summer feed—or just the nature of the critter?

Summer Feeding

By ED HARRISON*

THE PASTURE season represents the weakest point in the feeding program on many farms. When the early pasture growth is lush and one changes from barn feeding to pasture feeding in a single day the cows are quite likely to gorge themselves. They may even do so to the point where they refuse their grain.

These young, tender, actively growing pasture grasses have a very powerful, stimulating effect on milk production. Therefore, this sudden change from barn feeding to pasture is usually accompanied by a sharp increase in milk production, which automatically increases the cow's nutritive requirements.

Even on the best pastures, the high-producing cow cannot consume enough grasses to meet her total needs. And there is still another factor involved—these actively growing pasture grasses have an over-laxative action which causes the food material to pass through the digestive tract so rapidly that there is not time for complete digestion. With the stimulus from grass to produce, and the total food intake failing to meet the cow's nutritive requirements, she begins to draft upon her body reserves and starts to lose weight.

As the body reserves are exhausted, nature's law of self preservation takes over, resulting in a sharp decline in milk production. This is particularly serious with late winter and spring freshening cows, because once this drop occurs it is practically impossible to restore production throughout the remainder of that lactation.

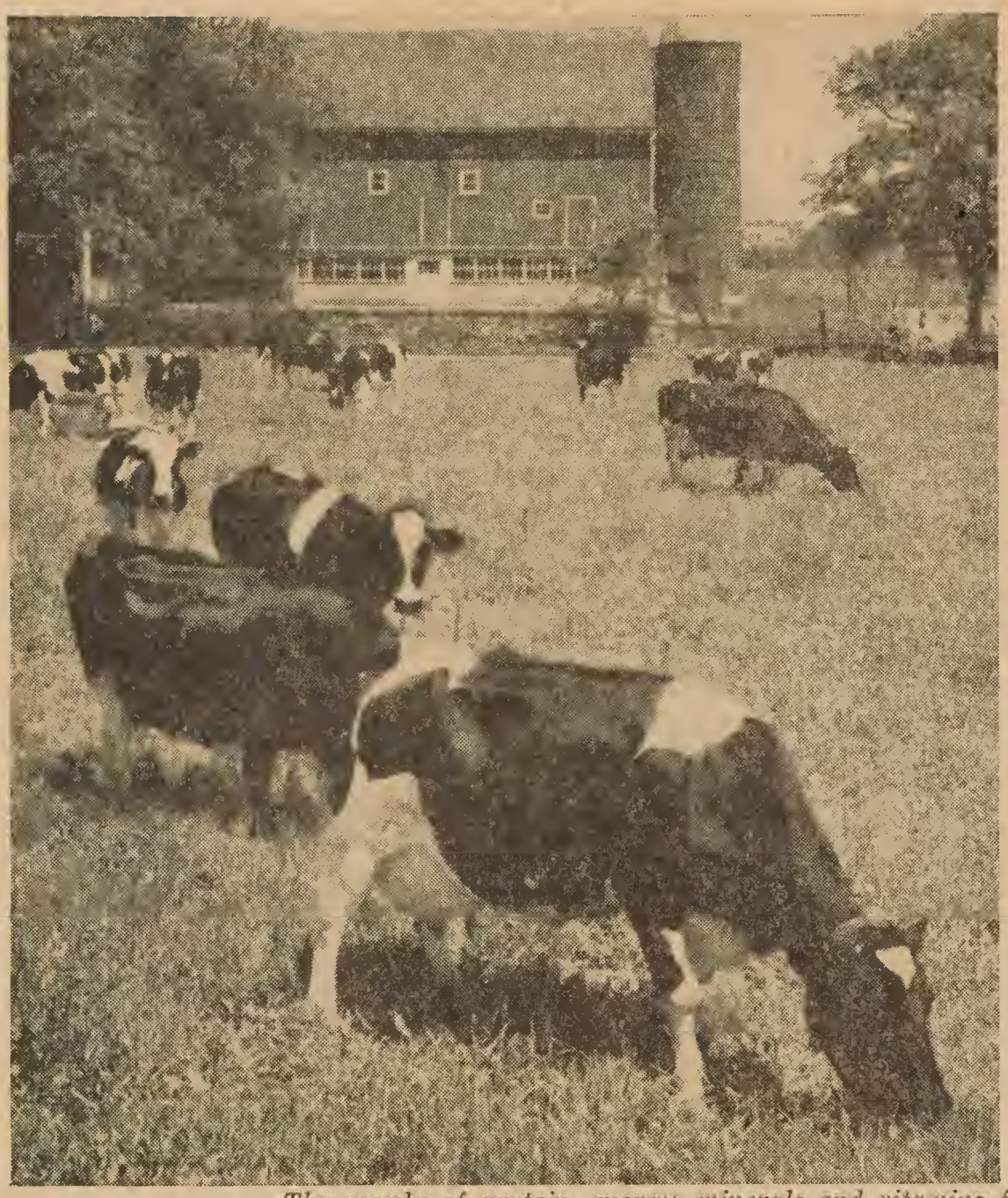
To guard against this, we like to use about 10 days to make the transition from barn feed-

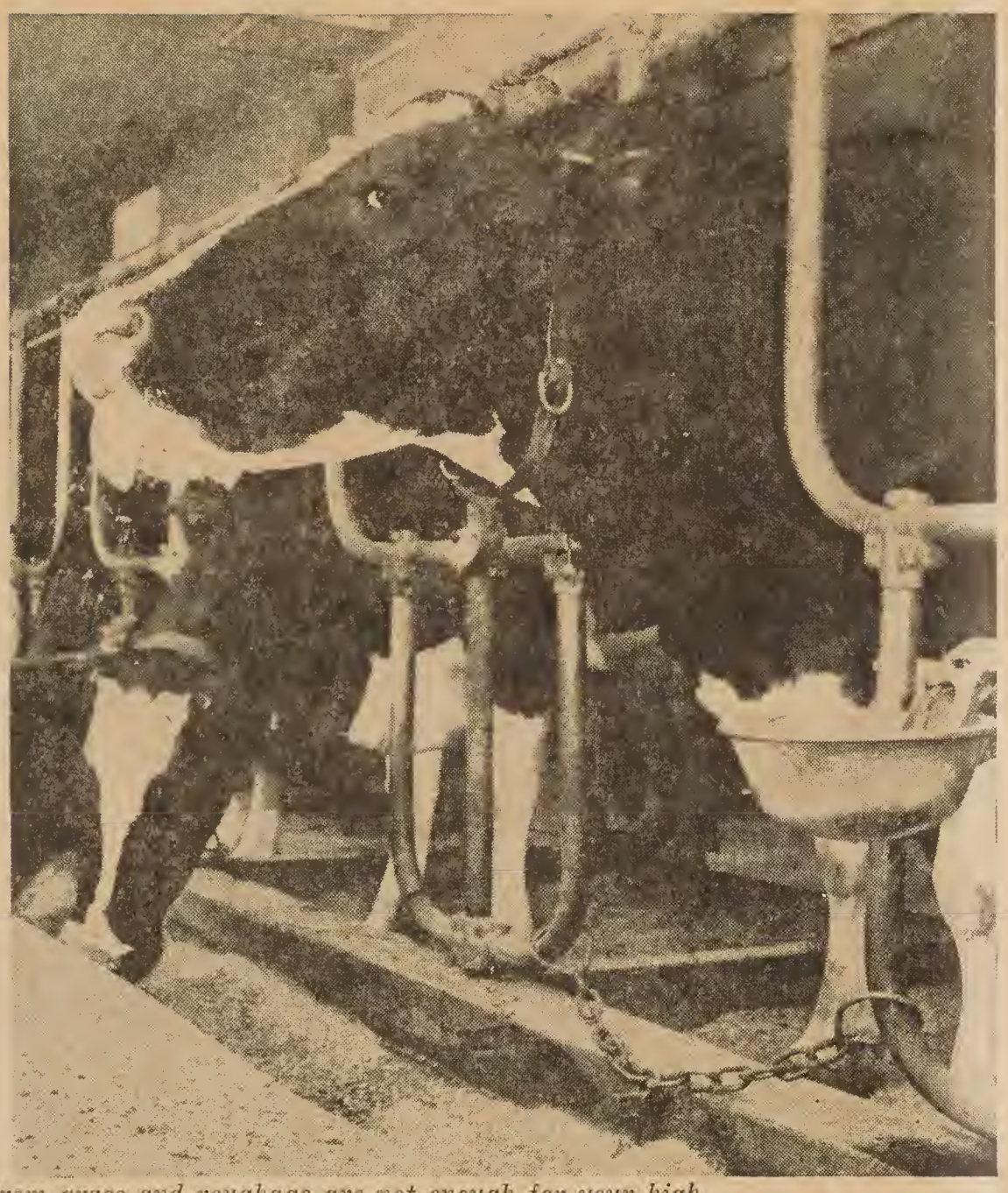
*Harden Farms, Camden, N. Y.

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The supply of protein, energy, minerals and vitamins from grass and roughage are not enough for your high-producing herd. To maintain milking potential all summer long, providc formula feeds with extra nutritive values.

ARE YOUR COWS GETTING THIS EXTRA HEALTH BOOST IN SUMMER?

In addition to the extra protein, energy, vitamins and minerals found in formula feeds, cows need the protection of AUREOMYCIN to avoid milk losses caused by respiratory infections, foot rot and bacterial scours.

Grass may look lush in early summer — but it still doesn't supply all the nutrients cows need to maintain high production.

In late summer, when pasture may be close-cropped and dry, cows get even fewer nutrients.

What do successful dairymen do about this? How do they provide the extra ingredients *not* found in pasture? Just as they do in winter — by continuing to see that cows get formula feeds.

What formula feeds do

Formula feeds, with their high energy and extra proteins, minerals and vitamins, keep cows in better health, help maintain flesh, help prevent summer production slumps. Cows that have freshened in the spring reach peak production quickly and sustain it. Cows that will freshen in the fall taper off more slowly and remain in better weight and condition to produce healthy calves.

What Aureomycin contributes

AUREOMYCIN® in formula feeds helps keep milk production up by keeping disease out. This wide-spectrum antibiotic attacks the disease organisms that cause foot rot, bacterial scours and respiratory infections. These diseases in your herd are costly because they reduce milk production. Tests accepted by FDA and two years of farm use show conclusively that AUREOMYCIN, fed according to directions, leaves no residue in milk at any time.

See your feed manufacturer

Your feed manufacturer or feed dealer can give you full details on the advantages of supplemental pasture feeding. Talk to him. Ask for feeds containing AUREOMYCIN. American Cyanamid Company, Agricultural Division, Princeton, New Jersey.

®AUREOMYCIN is American Cyanamid Company's trademark for chlortetracycline.

The label instructions on Cyanamid products, and on products containing Cyanamid ingredients, are the result of years of research, and have been accepted by Federal and/or State Governments. Always read the labels and carefully follow their directions for use.

CYANAMID

AUREOMYCIN
IN DAIRY FEEDS

CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

With 40 sows, there are lots of pigs going to market from this Central New York farm.

by GORDON CONKLIN



Jack Reohr and son Bob look over a group of potential pork chops.

These Little Pigs Went to Market

RIGHT up-to-date are the farrowing pens used by the 40 sows at the farm of John Reohr, Jr., Union Springs, Cayuga County, New York. There are four thermostats, each controlling electric heating cables in the floors of three adjacent farrowing pens — twelve pens in all.

Each of these pens has overall dimensions of six feet wide and seven feet long, with a farrowing crate for the sow, measuring two by seven feet, in the middle of the pen. The floor is heated only in the area **outside** the farrowing crate where the little pigs move around.

These floors were built with a gravel base over which was put a polyethylene plastic shield and then four inches of "vermiculite cement" for insulation. As the name implies, this four-inch layer consists of concrete to which vermiculite was added as it was mixed. Heating cables were laid on top of this "spongy" concrete, then two inches of regular concrete were poured as a final layer; the cables remain imbedded in this top layer.

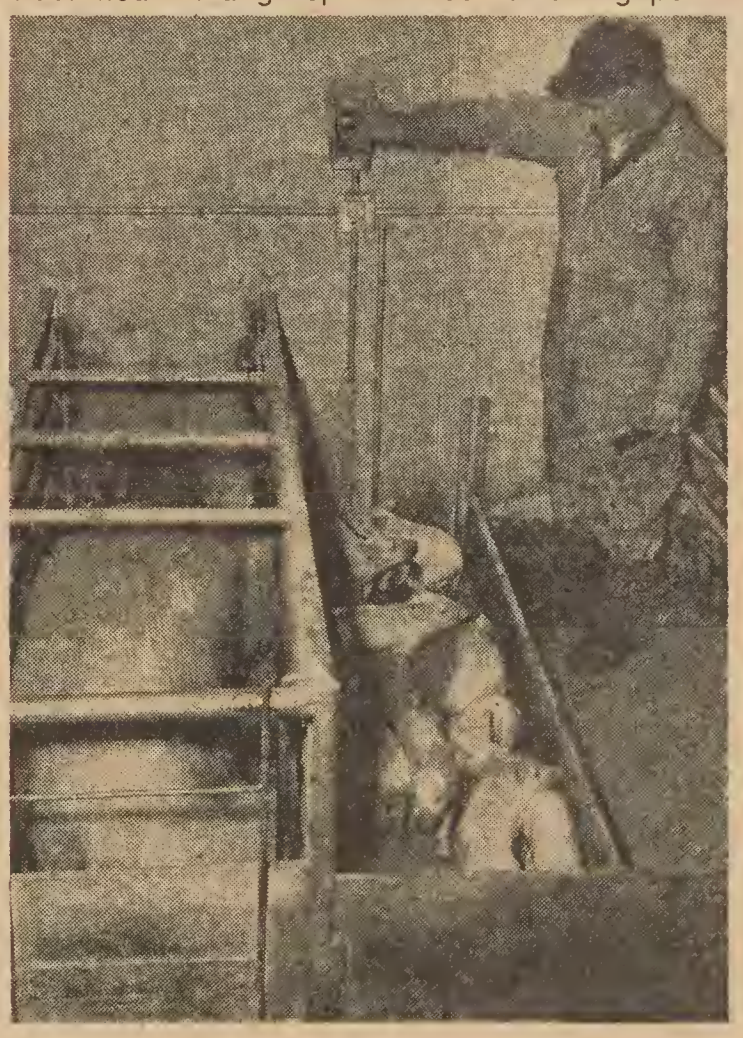
Walls and ceiling of the 18' x 40' farrowing house are also insulated — three-inch thick rolls of rock wool were used here. It's a pole-type building with exterior plywood siding and galvanized steel roof. Jack bought old telephone poles, had 4 x 4's sawed out of them and put them four feet apart on center, with the portion already creosote-treated underground. Hardboard is used for interior siding on both roof and sidewalls. Jack reports no problem with rats in the insulation or elsewhere in the building.

The farrowing house has a capacity of 12 sows; 14 sows are bred to farrow near the same time to be sure to have a "full house." Sows are obstinate, will farrow only in the pen in which they are first placed upon entering the building. Contrary to popular belief, however, they are clean animals if given the chance. These sows are turned out of the farrowing house twice a day and they are "housebroken" so all their urine and manure is deposited outside.

When asked about feeding sows, Jack says, "If you're ashamed of your sows because they aren't fat—you're doing okay." He self-feeds nursing sows, but not pregnant ones. He prefers to control the latter's feed intake by personal supervision of their twice-daily feedings. Their feed consists of 1,600 pounds of corn or barley (or a mixture of both), 250 pounds of supplement, and about 200 pounds of second or third cutting alfalfa—all ground and mixed together in a single ration.

Bloodlines are predominantly Yorkshire; boars are registered Yorks and are selected for meat type. Now and then a young boar is sold from a litter for breeding purposes, but not as a purebred. The Reohrs are interested in meat production rather than selling breeding stock. Jack says, "An ordinary boar costs around $50 to $75 at four months of age. I can afford to pay twice that for an officially performance-tested one because it can cost plenty to run my own 'performance test' — especially if the boar happens to be a dud."

The farrowing house has four thermostats like the one at Jack's fingertips—each controlling floor heat in a group of three farrowing pens.



Ordinarily, Jack uses a service boar for about two years, although he has had them as long as five years. Recently he started alternating boars to see if he could improve conception rate, will continue if it works well. "Don't put a boar in to run with bred sows," he cautions, "because he just eats too much and gets too fat."

Little pigs are given a pig starter ration when they are a week old, but they're usually about three weeks of age before they'll eat enough to notice. They're weaned at about four weeks and then go to a pelleted growing ration. This ration is fed until they really begin to "make a hog of themselves" at a weight of about 50 pounds.

Jack, with one eye on the feed bill, then switches them to a homegrown feeding ration that remains the same, except for a gradual drop in protein level from 16% to 12%, until they are sold. This schedule means pigs are in the farrowing house four weeks, in the "nursery" four weeks, and in the finishing pens four months.

The fattening ration, which is self-fed, is a mixture of homegrown grains (corn or barley, or both), plus a supplement with the usual protein, minerals, vitamins, etc. Pigs are marketed at about 210 pounds, a weight reached at around six months of age. All are sold by grade at the Empire Livestock hog pool at Caledonia, New York.

Jack's records show that in 1961 80% of his offerings graded "Select" or "No. 1." He receives a premium of 75¢ per cwt. over market quotations for "Select," 50¢ per cwt. bonus for "No. 1." He likes selling by grade, not only because of bonus prices, but also because it helps check out his breeding and feeding programs. No attempt is made to outguess the market; regular marketing every two weeks is his goal.

Growing pigs have electrically heated automatic waterers available except for their four-week stay in the "nursery." Here, they are watered from barrels so they can be wormed with chemicals in the water. "The stockman's eye can tell when worming is needed," Jack says. Normally, he does it only once — just

(Continued on Page 19)

Editorials

By Gordon Conklin



OPEN WIDE THE DOOR!

ONE VERSION of the Golden Rule tells us to "seek for others what you most want for yourself." By this definition of concern, a man to whom we give special honor this year served his fellow men very well indeed.

Justin Morrill was born at Strafford, Vermont, the son and grandson of blacksmiths. Although his thirst for knowledge was insatiable, family finances forced him to leave school at fifteen to begin working for a local storekeeper, Jedediah Harris. But he borrowed every book he could lay his hands on, and honed his native intelligence to a keen edge by stropping it on the great ideas of the ages.

As a result of his own experience, he vowed to look for a better road for the young people of following generations. He wanted not only to open wide the educational doors (largely closed to those without wealth), but also to blend the liberal and the practical in the process of learning. He authored and submitted to Congress a bill that would make public lands available to finance colleges that would train students to make a better living and a better life.

Here was federal aid to education at its best; the states have since taken over most of the financial support of Land Grant colleges.

It was altogether fitting that Abraham Lincoln's signature made the Morrill Land Grant Act law on July 2, 1862. Like Morrill, Lincoln had worked endlessly to educate himself, and had never forgotten what it was like to be poor.

Today, sixty-eight Land Grant colleges stand as monuments to Justin Morrill's vision. Although they number less than 4 percent of the nation's colleges, these institutions enroll 20 percent of the country's undergraduates, and grant nearly 40 percent of all doctoral degrees.

We honor that great and wise man from the Green Mountain State, and also countless others who have had a part in this noble experiment.

As we honor Morrill, let's not say, "Oh, if we only had men like him among us today!" Rather, we should try to catch the vision of men like him who **are** among us, pointing the way to heights beyond what has been erected upon the foundation he helped to build!

THE IRON FIST

MY SMALL SON, aged 4, is blessed with great enthusiasm—and more ideas than his mother and I can keep up with. The other day he wanted me to move a hefty stone to his "fort." After looking the situation over I decided he could handle it by himself, and that even if worst came to worst he couldn't get hurt very badly.

Now, Daddy could have done the job much quicker and with far less risk of pinched fingers; but I decided to offer only suggestions and encouragement. Finally the little fellow got it wrestled into place and, panting a little, rose with a gleam of pride in his eyes and satisfaction in his smile. He looked like he was about to beat his chest and break into a Tarzan victory shout. Watching, I knew that he had taken another step, tiny though it was, along the path of self-reliance and responsibility.

When I reflect upon the role of government in our nation, I remember such incidents and see some parallel.

Growth is not restricted to the young; it is a lifelong process. Although I cannot fully explain why, it seems to me that growth toward constructive maturity is the reason for living —and that it can occur only in an atmosphere of encouragement toward personal responsibility. If we comply with **all** the requests of our children—or if government leaders feel compelled to solve **all** our problems—then encouragement toward the growth of such responsibility is removed.

Shifting responsibility to others seems convenient at times—but it is a double-edged knife. One edge seems temporarily to cut away our present problems; all too often we forget the fact that the other edge busily saws away at the control we exercise over the direction we are going. Since time immemorial, power to manage has belonged to those who accept —and exercise—responsibility.

As a farmer, as a consumer, are you glad that the price of tractors and automobiles may be a few dollars less next year than they would have been if the iron fist of government hadn't overcome the men of steel? If so, have you reflected upon the fact that prices of products determining your livelihood can be similarly decided? Have you asked yourself about the implications of this event in terms of the power held by a Secretary of Agriculture to regulate farmers? Have you thought about how far farmers might get in organizing and raising food prices in a nation where more than 90% of the voters are not farmers? Make no mistake; the same massive power used on steel manufacturers is being brought to bear to push farmers and lawmakers into line on legislation affecting farm people.

Steel companies argued that they had made no general price increase since 1958. Amidst all the hubbub two ironic facts escaped notice. One is that 1961 expenditures by the federal government exceeded those of 1958 by $9.5 billion—an increase of 13%. Another item of interest is that 75,000 employees were added to the federal payroll in the first year of the present administration. All the verbal fireworks shot at steel companies by congressmen and others in public office sure reminded me of that old saying about people in glass houses throwing stones!

Sure we need strong leadership! There are a variety of essential jobs that can only be done by the concerted action of citizens through government. To the credit of all branches of our government, many very capable men serve in public office—only a small percentage of whom really believe that democracy should be replaced by bureaucracy.

But history proves we must fight to retain a broad base for decision in our democracy. The callous-handed farmer who wrestles with many of his own problems also contributes to the fund of national wisdom. No man — or small group of men—in Washington is capable of deciding with justice every issue, ranging from the price of steel to how many acres of wheat a farmer is entitled to grow.

Parents take calculated risks in stimulating a greater capacity for constructive living in their children. Often the results of youthful efforts are far below what would have been if parents had carried the ball for them. But a wise parent knows that his greatest accomplishment is to render himself dispensable by creating foundations upon which his children can build beyond him. Similarly, government can best serve its people by creating a climate in which individuals and groups are encouraged to tackle most of their own problems.

But there is one rub, folks, to all this. Responsibility and its twin—the right to manage—do not hang motionless in mid-air; they move toward those who accept them. If too much centralized authority has come upon us, it is partly because you and I have abdicated!

NEEDED: A "HOOKER"

A FRIEND recently told me that he had stopped drinking milk and eating butter because of the talk about cholesterol. While he talked, he started on his second pack of cigarettes for the day.

Listening, I mused upon the fact that many products have their own built-in promotion program because they contain addictive compounds. Tobacco has nicotine; the "happy juices" have alcohol; soft drinks and coffee have caffein.

Strong cases can be made by medical and dental science against most of these products —with far more proof than the statements about the danger of cholesterol in milk. But, with those things that are mildly addictive, people tend to shrug their shoulders, reach for another, and say, "Well, they haven't proven anything yet."

Most nutritionists still think of milk as one of the best foods around. Maybe we should use part of each day's production just as it is for babies and children, then put a "hooker" of some kind in the rest so we older folk would stay by it for the "kicks" regardless of scare propaganda.

Any ideas?

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A Constructive Force in Northeastern Agriculture

Founded 1842 Volume 159 No. 6

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AA's Farm Dollar Guide

THE STEADY DECLINE in number of dairy cows in New York has been reversed. From 1956 to 1960 dairy cow numbers dropped 9%. On January 1, '62, numbers were 3% above the low of 1,366,000 in 1960. Production per cow in '62 is likely to increase 2%. U. S. figures show 5% fewer dairy cows in '58; 4% fewer in '59; 2% down in '60; and 1% down in '61.

The downward trend in fluid consumption is likely to continue. The percent of milk used as Class I is likely to be lower. Volume of milk (U. S.) for manufacture was up 2 billion pounds in 1961, and will be up 2 or 3 billion more in '62. Government bought products representing about 9% of TOTAL MILK (U. S.) PRODUCTION figured on the basis of solids not fat (6% figured on basis of butterfat).

CORNELL FIGURES (1959) on cost of producing milk showed some dairymen with costs below $3.50 per cwt: some with costs above $6.50. There is more opportunity for individual dairymen to increase income by reducing costs than there is by increasing milk prices.

VOTE ON NATIONAL TURKEY ORDER is scheduled for June 18 to 22. If you produced less than 3,600 lbs. (about 200 turkeys) in '61 you aren't eligible to vote. About 80% of growers produced less than that figure.

Hearings on potato marketing order, recessed in April, may be reopened in July.

Outlook for SUMMER AND FALL HOG PRICES has improved. U. S. SPRING PIG crop was up less than indicated in December.

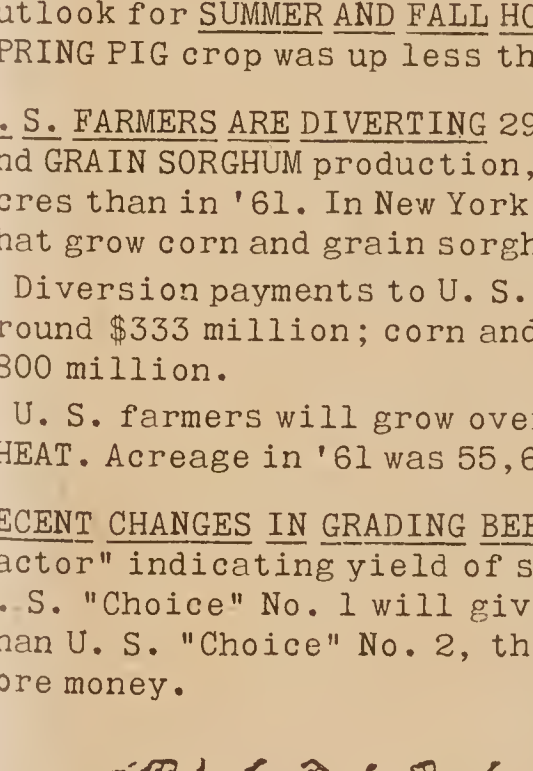
U. S. FARMERS ARE DIVERTING 29,590,700 acres from CORN and GRAIN SORGHUM production, almost 3 million more acres than in '61. In New York, 16,897 of the 41,199 farms that grow corn and grain sorghum are signed up.

Diversion payments to U. S. wheat farmers will total around $333 million; corn and feed grain payments over $800 million.

U. S. farmers will grow over 15 million less acres of WHEAT. Acreage in '61 was 55,648,000.

RECENT CHANGES IN GRADING BEEF CARCASSES adds "cutability factor" indicating yield of salable meat. For example, U. S. "Choice" No. 1 will give higher percent of meat than U. S. "Choice" No. 2, therefore would sell for more money.

The Song of the Lazy Farmer



MY neighbor thinks he's pretty smart 'cause when it's time for chores to start, he hits a button that's marked "Go" and quickly feed begins to flow from bin to bunk or trough, while he just sits and watches gleefully. He claims that all he does is fix some dials so he can grind and mix the right amount and kind of feed that he's decided his steers need, then augers automatic'ly propel it where it ought to be. When steers are fed, he works controls and soon another ration rolls across the lot so his hogs can fill up without the help of man.

But neighbor's not the only one who doesn't sweat to get chores done; my feeding's automatic, too, the only thing I have to do is make sure that the clock is set to ring at five a.m. and get my hired man out of his bed so he can get the livestock fed. Instead of pipes with augers in, I've got a scoop in ev'ry bin, with bushel baskets big enough to haul an awful lot of stuff. My system also makes more sense, I put it in with less expense, and neighbor does more work than me, no buttons need I push, by gee.

8 PRACTICAL REASONS WHY YOU SHOULD USE WEEDAZOL TO ERADICATE THESE PERENNIAL WEEDS!







WEEDAZOL is a specific chemical—developed especially for successful eradication of hard-to-kill perennial weeds such as Canada thistle, whitetop, leafy spurge, milkweed, sow thistle, etc.

WEEDAZOL is a "translocator"—is absorbed through the leaves, moves almost without restriction throughout stems and roots to accumulate in the underground storage roots—then proceeds to provide killing action even as new shoots are formed!

WEEDAZOL is economical—for only 25 cents you can eliminate a solid stand of Canada thistle in an area 2 rods long by 1 rod wide, even if thistle is choking every inch of the land treated!

WEEDAZOL is safe for the soil—is not a soil sterilant, will not form harmful soil residues that will affect the land.

WEEDAZOL is safe to handle—will not create fire hazards, corrode spray equipment; is clean, safe and easy to use.

WEEDAZOL outdates previous methods—has been proven far more effective in eradicating hard-to-kill perennials than either cultivating techniques or ordinary 2,4-D formulas.

WEEDAZOL is the original Amitrol weedkiller—discovered and developed by Amchem Products, Inc., the originators of 2,4-D, 2,4,5-T and other basic farm weed killers.

CAN YOU AFFORD NOT TO USE WEEDAZOL?—When you consider the waste of time, labor and valuable land involved consider what WEEDAZOL can do for you. For freedom from perennial weed problems and a more productive farm operation, try WEEDAZOL—you'll appreciate the result!

For those of you who prefer a liquid. New! AMITROL-T, liquid amitrole in its newest, most effective form. More killing action on quackgrass, horsetail rush, cattails, milkweed—equal to WEEDAZOL and it's a liquid! AMITROL-T or WEEDAZOL—you'll appreciate the weed-killing results!

AMCHEM **WEEDAZOL**

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Meet the Anderson management: (l. to r.) Ed, Ernest, and Ernest, Jr.

Management For Profit

ON A DAIRY farm, net income depends on input in terms of labor, feed, and overhead, and output in terms of milk. That's the way the Anderson family—Ernest, Ed, and Ernest, Jr. of Litchfield, Connecticut—look at the situation.

On the input side, they figure to raise all the feed they can, and have been successful to the point of winning first place in the Litchfield County Green Pastures Contest, and second place in Connecticut. Their aim is to finish haying by the third week in June.

Forage Program

"Hay that gets wet is fed to young stock," says Ernest, Jr. "We sell some hay, and any that is too bad is chopped for bedding.

"We have four fields in alfalfa, but most of our land is too heavy and we seed with red clover and timothy, plus 1 lb. of ladino per acre. Meadows are seeded with oats as a nurse crop, but the oats are pastured rather than combined.

"In recent years we have depended more on grass than on legumes," said Ed. "The old meadows get the manure. Where there are legumes the fields get a yearly application of 225 to 250 lbs. per acre of 0-15-30; on grass we put the same amount of 10-10-10.

"We have some permanent pasture on which we put 500 lbs. per acre of a 10-10-10 fertilizer every year and clip most of it."

The cows on the Anderson farm get corn silage the year round—45 lbs. a day in winter and 25 to 30 lbs. in summer.

"We have been feeding more grain each year," observed Ernest. "The cows get pellets carrying 16% protein, with 26 lbs. for a cow per day about the top. It figures out about a pound of grain for 3½ to 4 lbs. of milk, but actually we don't use that as a complete guide—a lot depends on judgment. By watching each cow we can tell how much she can use."

The herd is on D.H.I.A., and those figures and the advice of the feed company representative are considered. Then Morrison's "Feeds and Feeding" is consulted, and a little more feed is added to be sure. Part of the heavier feeding results from giving about as much grain in summer as in winter. Some years back the summer milk-feed ratio was around 1 to 8.

Good feeding is essential, but it takes good cows to make full use of good feed. Replacements are raised on the farm, and surplus heifers are in demand by dairymen who want higher production. Artificial breeding is used, and you will hunt a long time to find a herd with such uniformly good udders.

"One of our big management problems," said Ed, "is to get a calf from every cow every 12 months. One help is a monthly examination and pregnancy check by our veterinarian. Any cow that doesn't breed regularly is sold, as well as any with production much below average. We never raise a heifer unless her dam is above the herd average in production, preferably from 3,000 to 4,000 pounds above."

The result of this program is a herd with a steadily improving production. Not so many years ago the herd average was between 9,000 and 10,000 lbs. of milk. That was by no means bad, yet the latest figure is 14,800 lbs. of milk and 568 lbs. of fat.

Management Important

The boys agree that management makes the difference between profit and loss. Dad keeps the accounts, and the figures are used in making management decisions.

One way in which costs have been controlled is by buying good used equipment at auction. Once it is bought it is kept in top repair in a well-equipped farm shop.

Some years back the figures indicated the need for some increase in size if three families expected to make a comfortable living. At that time the farm held 29 milkers. So the boys built an addition, 36 x 124 feet, doing practically all the work themselves. This increased the capacity to 52 milkers and a total capacity (including dry cows and heifers) of 60 to 65. There are no plans to increase size further.

"What about the next generation?" I asked. "Are the boys interested in farming?"

"You'll have to ask Ed," said Ernest, with a grin. "Mine are all girls!"

Ed does have a boy who likes farming. I hope he keeps this liking. It would be a tragedy to have so fine a farm leave the hands of so fine a family!

Report from New England

Contributing editor Hugh Cosline journeyed to Connecticut recently and visited some dairy farms. Here's his report about some dairymen in the Constitution State.

On soils and cows, he uses

High Feed Rates



Russell Peterson and prize cow.

BUYING a neglected farm and building it into a going enterprise is a slow and sometimes discouraging experience, but it can be intensely rewarding both financially and in personal satisfaction.

Russell Peterson's father-in-law bought such a farm, near Woodbury, Litchfield County, Connecticut, but passed away soon thereafter. Russell rented the farm, and on his shoulders — and those of his wife Joyce—fell the task of organizing.

One of the first needs was to improve soil fertility. Most of the fields needed 3 tons of lime per acre, and lime is still put on once each rotation at the rate of from 1 to 2 tons per acre.

"The soil on this farm is heavy," said Russell. "We stepped up production by using plenty of fertilizer; every year we put on two applications of around 350 lbs. per acre of 15-10-10 on meadows. As a result, we keep 60 head of stock on about the same land that kept 25 when we moved here.

"We don't feed silage in summer; the cows get green chopped feed. They have hay all summer, and if we get short of "green chop" they get more hay—without any drop in production. Our big reason for not feeding silage is the problem of spoilage. You just can't start and stop feeding silage in hot weather without serious spoilage."

Russell starts green chopping rye in late April. Then there is wheat and vetch, and if it gets ahead of the cows it is put in the silo. Then comes corn, drilled at the rate of 125 lbs. of seed per acre; also millet and sudan grass. On one field he plowed down rye, put on a heavy application of manure and 1,000 lbs. of 15-10-10 fertilizer per acre before planting corn.

Good planning has kept the equipment investment reasonable. Russell doesn't own a hay baler, but hires some hay baled. Field equipment consists of 2 tractors; a flail chopper used for silage, green chop, and dry hay; a rake; plow; harrow; and drill.

The barn is equipped with a gutter cleaner, a silo unloader, a bulk milk tank without pipeline, and a bulk feed bin. No labor is hired, all the work is being done by Russell and Joyce.

Remodeling Done

Some remodeling and construction was needed to take care of the increased number of cows. There are four rows of stanchions. (The old stable had two, arranged so a barn cleaner was not practical.) Incidentally, the new stalls are considerably larger, giving the cows more comfort and their owner more milk.

"We feed more grain than we did," said Russell. "Some cows get as much as 40 lbs. a day of mixed feed plus 15 lbs. of such supplements as citrus pulp and hominy.

"In deciding how much a cow can handle, I consider her weight, her age, her butterfat test, and her production. I also study Morrison's "Feeds and Feeding" — but I feed from 10% to 15% more than the book recommends. Incidentally, cows eat as much as 90 pounds of silage a day. I never buy hay. If I am short, I figure that nutrients are cheaper to buy in the form of concentrates.

"I feed as much as 20 lbs. of grain a day to dry cows. I stop milking when a cow is giving as much as 35 lbs. of milk a day. The grain is cut down to 6 lbs. and after 7 days I milk the cow out once, unless she has had some trouble with mastitis, in which case I milk her until the trouble clears up. I know such a program would have been considered impossible years ago — but it works for me.

"Getting back to roughage, I use considerable orchard grass. This isn't alfalfa country, and so far I haven't tried birdsfoot. Orchard grass must be cut early, but it also provides good green chop late in the fall."

Herd Records

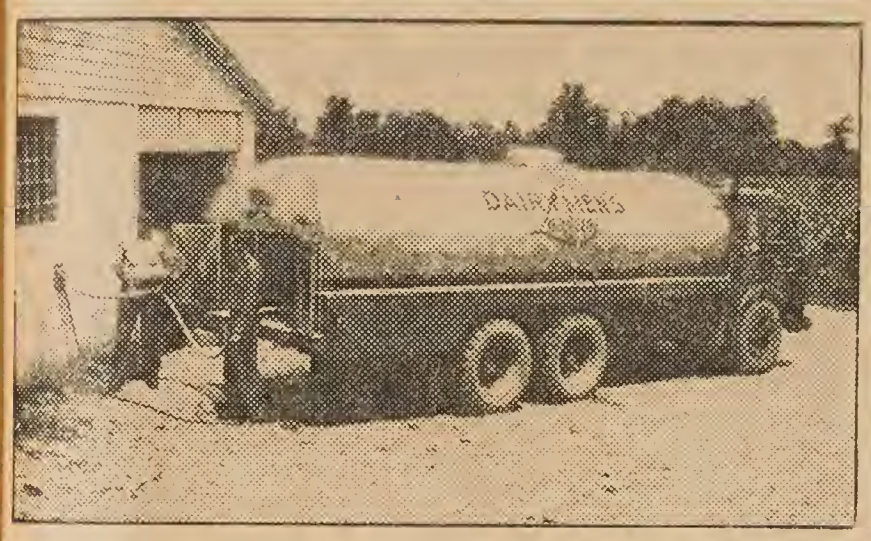
Records are kept on the herd on Cornell's I.B.M. computer. Russell considers the figures valuable if tempered with judgment. "One difficulty," he says, "is in reporting accurately the roughage consumed. If you don't give accurate figures you can't expect accurate answers."

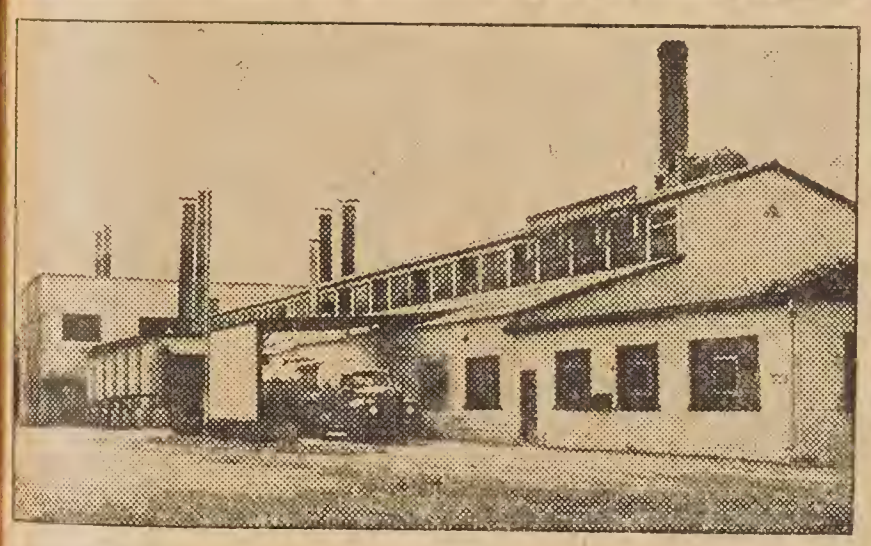
Russell has no plans to expand his farm operation. Figuring man equivalent as 1.3, milk production per man per year is 364,000 lbs. from 31 cows, averaging 15,294 lbs. per cow.

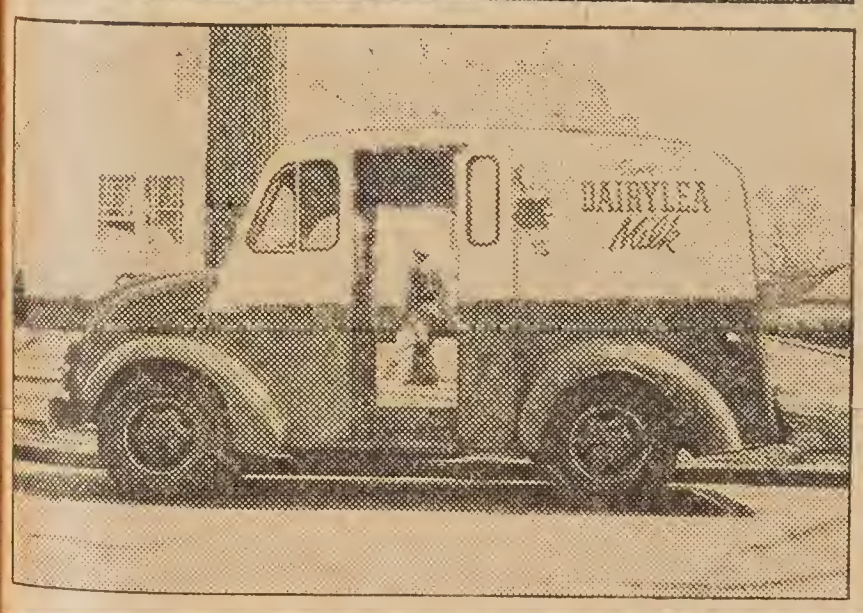
I asked about recreation. "We both bowl," said Russ, "and I like to play baseball." That last statement may surprise you until you have been told that Russell Peterson is a youngster of 27 years. I'm sure you'll agree that in a relatively few years he has developed quite a herd and quite a farm business!

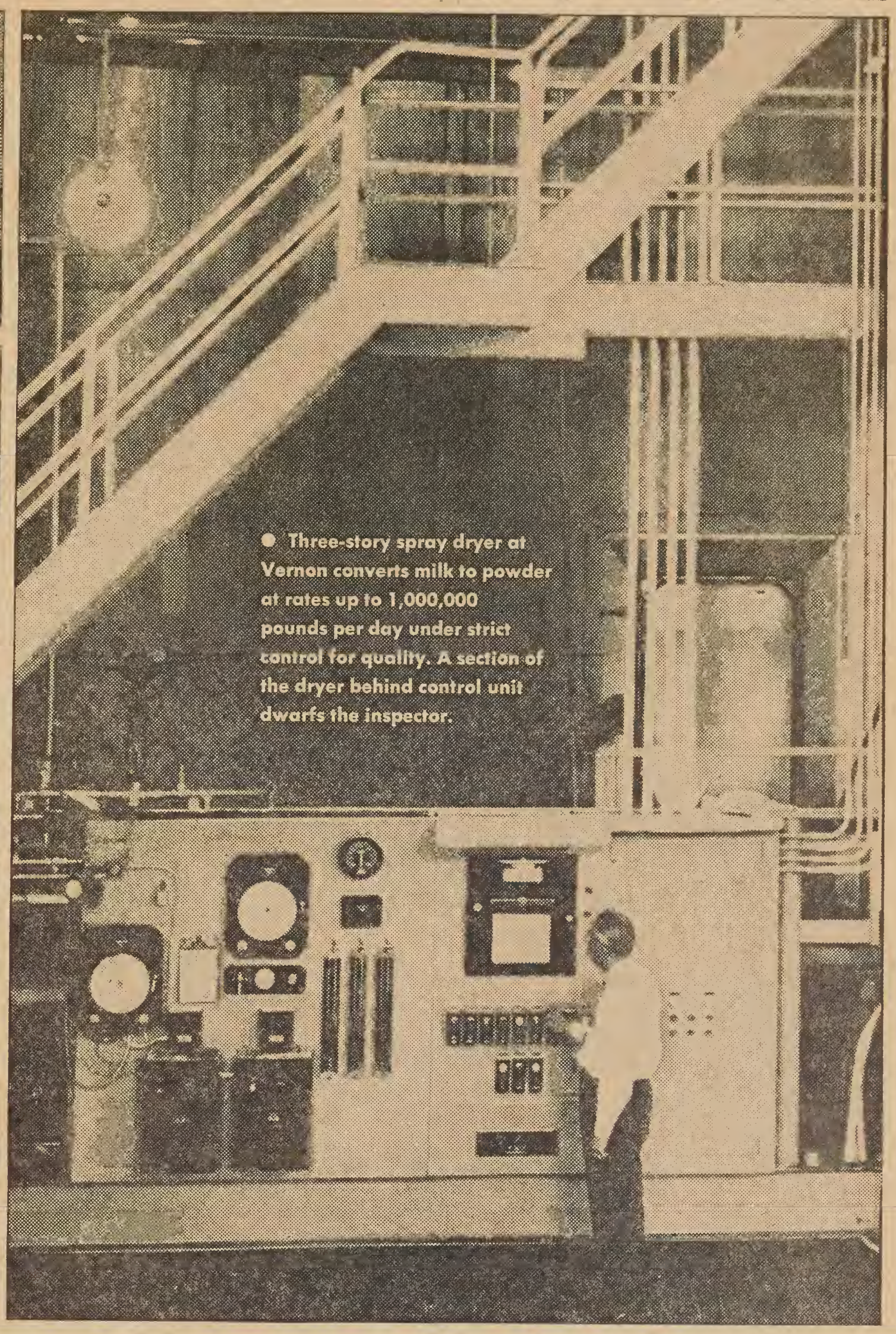
Marketing milk today takes more than cows and cooperation...











● Three-story spray dryer at Vernon converts milk to powder at rates up to 1,000,000 pounds per day under strict control for quality. A section of the dryer behind control unit dwarfs the inspector.

The Vernon League Plant handles up to a million pounds of milk a day . . . about 500,000 quarts . . . and it's just one of 91 facilities operated by Dairymen's League members to market their milk

Important to the Economy of the Industrial Northeast

Dairying is this area's third largest industrial component. It is by far the largest agricultural enterprise in the Northeast, as well as in the nation.

Dairymen's League marketing operations in the New York Milkshed have a yearly sales volume of $192,000,000.

The 17,000 dairy farmers who own and direct the Dairymen's League have invested an average $45,000 on farm, stock and equipment.

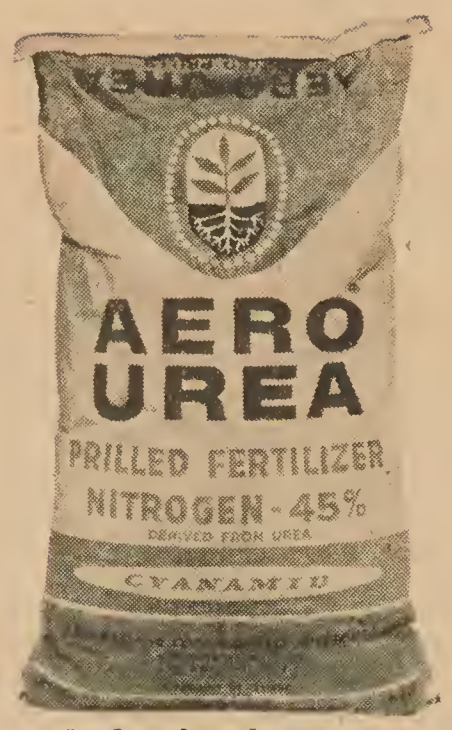
The League operates 91 milk plants, including three giant manufacturing plants, 23 distribution branches, five ice cream manufacturing plants, plus additional distribution outlets and 54 country plants.

Giant manufacturing plants like the newly expanded Vernon, New York plant . . . cheese plants like the League plant at Adams which turns out New York State cheddar . . . ice cream plants and milk distribution plants . . . big Dairymen's League bulk tank trucks efficiently carrying over-the-road loads of milk . . . and the familiar red, white and blue Dairylea home delivery vans . . . all are parts of the vast marketing machinery developed and directed by the Dairymen's League members.

That's why dairymen call the League "the full-scale cooperative." For forty years its members have demonstrated how dairy producers can gain farm-to-market control of their milk. That's why League members know their milk will always be handled. That's why consumers have come to trust the name "Dairylea," the brand of the Dairymen's League Cooperative Association for its growing line of milk products.

17,000 progressive dairy farmers in 531 locals own and direct

THE DAIRYMEN'S LEAGUE COOPERATIVE ASSOCIATION, INC.



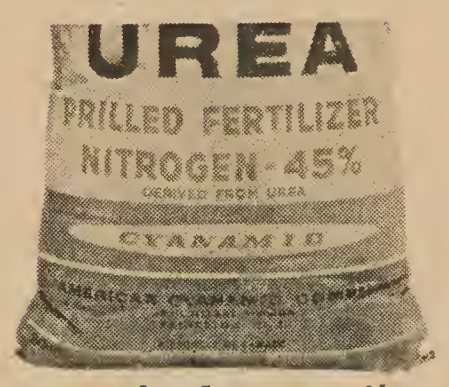
It feeds nitrogen



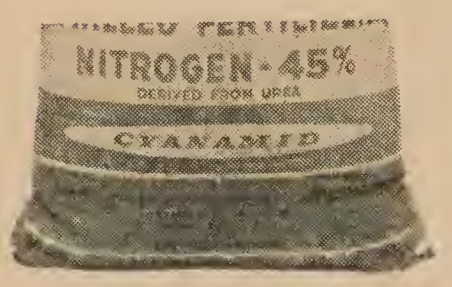
day after day



week after week



month after month



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That's AERO UREA 45% nitrogen—the long-lasting concentrated, leach-resistant urea fertilizer.

American Cyanamid Company, Agricultural Division, Princeton, N. J. ®*AERO is American Cyanamid Company's trademark for its urea fertilizer.*

CYANAMID

Summer Feeding

(Continued from Page 1)

ing to full time on pasture. The first day, after making sure the cows are well fed in the barn, we turn them to pasture for a few hours in the afternoon. With their appetite already appeased, they are not so likely to gorge themselves on grass.

Each day we gradually increase the length of time on pasture until they are on it full time, but **always** during the transition period making sure that they are well filled in the barn before being turned out to pas ture. As a result of this procedure, we seldom have a cow refuse her grain.

Feed Hay

In an attempt to counteract the over-laxative action of these actively growing pasture grasses, we continue to feed hay. Even on the best pastures cows seem to crave some dry roughage in their diet, and will consume it in surprisingly large amounts. This dry roughage, besides supplying food nutrients, also helps to slow the passage of all food materials through the digestive tract, promoting more complete digestion and utilization of the entire ration.

By following this system, we seldom get the big increase in production often experienced after turning to pasture, but even more important, we avoid to a great extent the costly decline in production frequently experienced at about 4 to 5 weeks after changing directly from barn feeding to pasture.

A well managed pasture can be a very valuable crop; the yield is high and the cow does her own harvesting. Pastures, however, are not a complete solution to all our summer feeding problems. There are certain limitations that we should recognize if we are to make the best use of them.

The most serious among these limitations is the fact that there are a number of different factors and conditions that are capable of causing wide variations in daily food intake. As the growing season advances and the pasture grasses begin to mature there is a sharp increase in the fiber content, with a corresponding decrease in both palatability and digestibility. The cows will, therefore, consume less, and what they do consume will be of lower feeding value.

During a hot, dry, and unfavorable growing season, pasture grasses practically cease to make any growth. Under such conditions the available feed from pasture may even fail to meet the herd's roughage requirements. On days when the sun is bright and the temperature rises to 80° and above the cows soon search out the shade and quit feeding, regardless of the quality of the pasture.

All of these conditions combine to cause wide variations in daily food intake; variations in daily food intake quickly lead to corresponding variations in daily production. Anyone who has milked cows knows all too well that these fluctuations in food intake and milk production will soon result in a more rapid than normal decline in production.

May I point out again that this can be disastrous with late winter and spring freshening cows, because **once this drop occurs there is no way to restore production during the remainder of that lactation.** Furthermore, it is not just an occasional happening, because these pasture shortages occur so frequently that we must plan ahead if we are to be ready to meet them.

There are a number of things that we can do that will help to standardize the daily food intake for cows on pasture. At Hardin Farms we have found good hay very helpful, and feed it 365 days a year; as the available food supply from pasture declines, cows will consume it in increasing amounts.

For the last several years we have also filled a silo or two with early cut hay (as silage) and fed it out during the hot dry summer months. These same silos can be refilled with corn in the fall; we find this arrangement very practical. It gives double use of the silos, and insures that the first cutting is harvested early enough to give good yields of later cuttings.

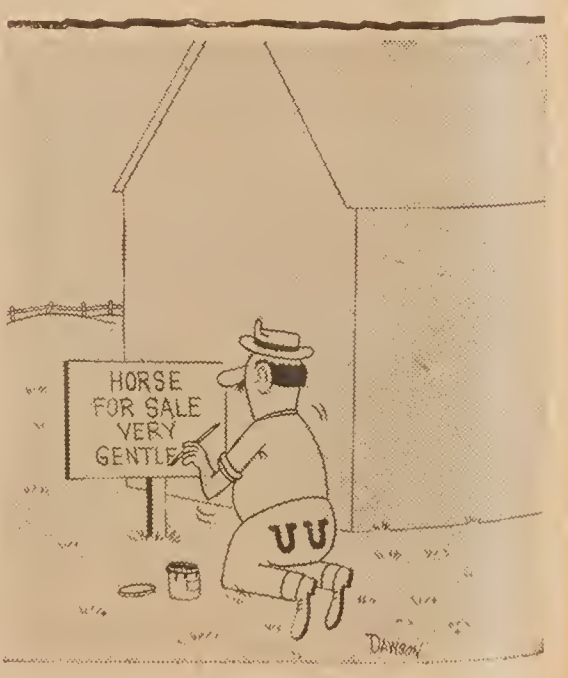
I know that we all hate to admit it, but nevertheless occasionally all of us have hay meadows infested with weeds. It is a good practice to put this hay into the silo so as to prevent the weeds from going to seed. We work hay silage into our haying program—when the weather is favorable for making early cut hay, we concentrate on making hay; but put up hay silage during unfavorable weather. During prolonged periods of favorable haying weather, there is always time in the morning when the dew is on to put a load or two into the silo to prevent spoilage.

Thick Corn

Last year, for the first time, we tried thick planted corn for direct chopping as an additional pasture supplement. The cows like it, and the acre yields were high. With low feed bunks and a self-unloading wagon, labor was reduced to a minimum.

We were pleased enough with the results so that we planted it again this season. I'm not ready to recommend it as a general practice, but I can offer some general hints. Plantings should be made about 10 days apart, because the corn will lodge if allowed to become too tall. Heavy fertilization (especially nitrogen) is required for rapid growth and high yields. We planted three bushels of seed to the acre with the grain drill.

The cheapest seed corn available sells for $6.50 to $7.00 per bushel; this would mean a seed cost of $19.50 to $21.00 per acre. Since we aren't interested in harvesting it for grain, I simply took a handful of commercial feed corn and placed 200 kernels in a seed flat to test germination. If the germination proves to be a little low, it is simple to increase the rate of seeding per acre.





George Boise stokes one of his hayburners.

Our Forage Program

WE PUT in our last bale of first cutting on July 2 in 1961—2,100 bales in all. During the entire season, we put in about 3,500 bales, counting second and third cuttings.

In March last year we installed a mow drier, which accounted in large measure for our being able to finish haying so early. It has a five horsepower motor and a 36-inch fan. There is a duct in each end of the barn; we move the motor and fan from one end to the other as haying progresses.

Extra Bonus

We had between 600 and 700 bales of DuPuits alfalfa that were extremely wet when they went on the drier, but we haven't found a moldy bale in that batch yet. One of the bonuses of early cutting last year was that we got our hay off just before a big storm that would have pushed it down flat as a pancake and made a nightmare of cutting it.

We had a big jump in milk production this past winter and we're convinced that top quality hay was the main reason. For the first five years we were on this farm, we always bought hay—but this year we should have about 500 bales left over. We use 0-15-30 or 0-20-20 as a top dressing on legumes after the first cutting and put 100 pounds of nitrogen per acre on some meadows that are mostly grass. Some of this nitrogen goes on before the first cutting, but most of it after the first cutting is off.

The nitrogen has been in the form of Aeroprills spread with a "whirligig" on the back of the tractor. The hopper holds the contents of one fertilizer sack; with the help of another man, I covered seven acres in 45 minutes.

We don't grow any oats, but make new seedings in August on land that has been summer fallowed following spring plowing. We fertilize ahead of seeding with 500 pounds of 8-16-16 per acre. In 1961, we seeded the 5th of August and got a good catch because of rainy weather that followed soon after.

Our 12-acre corn crop last year turned out very well—we filled a 14 x 33 silo, a 14 x 24 one, and sold 70 tons of silage besides. This figures out to somewhere around 20 tons per acre. Atrazine was used on a complete coverage basis; we didn't cultivate at all.

Plant population, calculated by pacing off a stretch of row and counting the stalks, figured out to 29,000 per acre. Fertilization consisted of 200 pounds of Urea plowed down, plus 500 pounds of 10-10-10, and "plenty" of manure.

Getting back to haying, I'm convinced that the secret of getting hay in early is to get started early — and then keep going. Naturally, our hay drier is a big help in doing this. We keep our equipment inventory at a minimum by hiring our crimping and baling done by a neighbor. We also hire a chopper for our corn, spend $600 to $700 a year for all custom work. We've been made more conscious of farm management figures by reading about results of the Farm and Home Management Club in the county. Figures from this group have been helpful as guides for our own business.

We use artificial breeding entirely, try to have most of our cows freshen during the months of September and October. Our herd average is around 12,000 pounds of milk per cow on 28 cows. Cows are fed the best hay in the morning, then silage (they get 60 pounds a day apiece) and grain after the morning milking. Then they get hay and grain just before milking at night. Hay is fed again after milking—they end up getting all the hay they'll eat.—*George and Reta Boise, Norwich, N. Y.*

NEW DIRECTORY

"Washbon's Directory of AI-Tested Holstein Sires in the U.S. and Canada" is just off the press. Successor to W. E. Washbon's popular "Dairy Breeding Guide" (now discontinued), it helps the dairyman find the best sires for his herd through an easy comparison of type and production statistics on over 600 bulls. Published by Holstein-Friesian World, Inc., Lacona, N. Y. $2.95.

* * *

The National Society of Live Stock Record Associations has published a directory of purebred livestock registry associations which will prove most helpful to anyone interested in purebred livestock. Copies may be obtained by writing to Allan C. Atlason, Secretary, 3964 Grand Avenue, Gurnee, Illinois.



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The dairy spray containing Cow-Tent® is the best possible protection you can give your cows —both indoors and out—against biting, blood-sucking flies and mosquitoes. The reason: sprays containing Cow-Tent have *double-barreled* action . . .

1) The potent synergized pyrethrins in Cow-Tent knock down flies, kill them quickly. And, flies *cannot* build up a resistance against pyrethrins!

2) The chemical repellents in Cow-Tent literally *drive flies away*. Too, SPRAYS CONTAINING COW-TENT ARE *SAFE* FOR DAIRY USE WHEN APPLIED AS DIRECTED. So protect your cows—in the field or in the barn—from insects that cause milk production drops. Your cows will be happy—*you'll* be happy with bigger milk checks! Demand a spray that contains Cow-Tent repellent and pyrethrins.

NOW . . . PROTECTION AGAINST FACE-FLIES — Face-flies can be controlled! If face-flies hit your herd, ask your dealer for a new, effective preparation containing Cow-Tent. Write MGK for the names of dealers in your area who handle face-fly repellents containing Cow-Tent.

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Sprays containing CRAG Fly Repellent's powerful repelling action protect dairy cattle from biting insects, such as horse flies, stable flies, horn flies, house flies, mosquitoes, gnats and face flies. Beef animals produce more meat, too, when protected by CRAG Fly Repellent. CRAG Fly Repellent is equally effective on dairy or beef animals, whether applied in back-rubbers, treadle sprayers or manually-applied sprays.

For more milk and meat, it pays in dollar-and-cent profits to protect your cattle with sprays containing CRAG Fly Repellent.

For more information on CRAG Fly Repellent, write CRAG Agricultural Chemicals, Union Carbide Chemicals Company, Division of Union Carbide Corporation, 270 Park Avenue, New York 17, N. Y.

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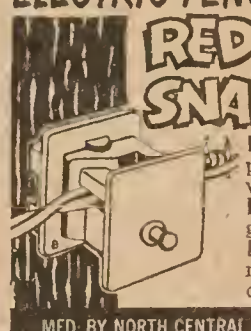
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The feed rolls in and the eggs roll out! Lou Dunckel checks the production line.

Upstate Egg Farm

POULTRYMEN, how would you like to pay the bill for 80 tons of feed per week? This is the amount delivered to Louis Dunckel of Oxford, N. Y., for his 100,000 layers. There are 12 big bulk bins in his main poultry house, each at the end of rows of cages. Trucks drive into the building and move feed with an auger directly into the bins.

Birds are housed in a building that has three wings—each 400 feet long and 50 feet wide. Roofs and siding are aluminum; the basic structure is pole type. Colony cages, 3 by 4 feet, each hold 25 birds. Lou started off with 21 per cage, is now experimenting with 27. All birds, of course, are debeaked before they are placed in the cages. On an operation of this size, adding one bird per cage can add as many as 4,800 hens to the total number.

Cage Arrangement

Cages are in two tiers, one above another. Feed is delivered to the birds by automatic feeders along the outside of the rows of cages; water is available in a trough which runs between the backs of two adjacent rows. That is, birds in two rows of cages drink water from the same watering trough, but each row has a separate feeding trough.

The feeder runs 12 hours a day. Lou believes this stirs up feed, causes greater bird activity, greater feed consumption, and consequently higher production. His latest pounds of feed per dozen eggs ratio is about 4:1.

Eggs are gathered with four-wheeled egg carts, sprayed with mineral oil as they are gathered, and then sent to the G.L.F. egg grading and packing station at Weedsport, New York. The oil seals the shell for quality maintenance and softens any dirt so eggs will wash more easily at the central grading point.

Pit cleaners were installed for each tier of birds—one cleaner above the other. They empty into a 250' x 200' lagoon over which the ends of the poultry house wings are built, using railroad ties for structural support.

In winter, when the lagoon is frozen, a tractor front end loader is used to put manure into a spreader. Nearly 250 acres of cropland on the 85 cow dairy farm, also a part of the business, can absorb large quantities of hen manure. Lou is experimenting with spreading liquid manure pumped from the lagoon into a tank mounted on a truck.

Over the last few years, many tons of lime have been spread on the farm. Partner Ed Cobb, who manages the dairy business, agrees with Lou on grassland farming; there isn't a plow on the place.

Lighting System

Going from cows back to hens, Lou uses 40 watt bulbs for poultry house lighting. They are spaced 12 feet apart in the row—one row of lights for each 9,000 birds (two tiers, 4,500 birds per tier). There are 32 fans in the building, each with a ½ h.p. motor and each controlled by a separate thermostat. Once a week, Lou's father, Dorr, greases and makes a maintenance check of the many items of equipment in the poultry building.

Some replacements are grown on the farm, but there are also seven other poultrymen contract-growing started pullets to keep the cages full. Pullets are delivered to the Dunckel place at 20 weeks of age.

Old birds, sold after their laying period is over, don't bring in many dollars. Lou says, "The trade seems to prefer floor birds, partly because cages often cause brittle bones due to lack of exercise. Colony cages aren't so bad on this score, but I still put an extra amount of calcium supplement in the feed to strengthen bones. However, whether you're talking about floor birds or cage birds, it's impossible to trade a flock of old hens from either housing arrangement for a flock of day-old chicks."

Some of the ideas for his poultry business were taken from a trip Lou made to California to call on poultrymen. He visited a number of them with a hatchery representative and had a chance to talk shop with men who had already "cut and tried" various methods.

Here's pointers for

Care of Your Pond

SINCE THE late 1940's, increasing numbers of farm ponds have been built, providing a source of water, fire protection, and excellent year-round recreation for the farm family —fishing, swimming, and ice skating. In some cases the raising of minnows or crayfish for sale as fish bait has meant cash income to the pond owner.

Unless a pond is fed from a spring cold enough so the water temperature does not get above 74° in the deep part in the hot season, it is best not to consider stocking with trout. A recent recommendation is to stock warm water ponds with largemouth bass and golden shiner combination — in which case the shiners (a kind of minnow) serve as forage for the bass. Bass and bluegills can be stocked, too — but unless the bluegills are well fished, they tend to take over the pond.

The usefulness and value of a farm pond can be greatly reduced by growths of plant life, which will develop in one form or another in any pond. There is no practical way to prevent the growth of water plants, but they can be temporarily eliminated, and one method is by fertilizing the pond (but not trout ponds). The object here is to produce a heavy bloom of algae that will reduce the amount of light reaching the bottom of the pond, thus making conditions there less favorable for development of scums and weeds.

But before fertilizing, the algae—and plants such as rushes, sedges, and reeds (with cattails perhaps the most common) should be cleared out by means of a rake, a loop of barbed wire, or some sort of a grappling hook attached to a line. Cattails are easily pulled by hand when seedlings.

Chemical weed control can also be used to get rid of the weeds, and is best applied in late spring and summer. It will probably need to be repeated more than once.

In this case, too, it is best to remove the bulk of heavy growth before using the chemicals. It not only increases the chances for thorough chemical control, but lessens the danger of bringing on an oxygen shortage that could result from too much plant material decaying at one time.

The chemicals are applied either to the pond water or directly on the vegetation — sometimes only one-half of the pond is treated at the one time (with two weeks between treatments of the two halves). Great care must be exercised to make sure that no chemicals flow into other waters, either public or private, that might injure fish or wildlife. If your pond has an outlet to other waters you will have to get a permit from the health officer to use chemical weed control.

The most commonly used chemical

(Continued on Page 12)

Kill Brush and Poison Ivy

Here are Cornell University Specialist Stan Fertig's recommendations for clobbering brush and poison ivy with chemicals. Remember that the rates listed under "What" are in terms of pounds of ACTIVE INGREDIENTS. Commercial products vary in the amount of active ingredient per pound or per gallon, just as a 10-10-10 fertilizer has more plant nutrients per ton than does a 5-10-5.

As an example, look at the basal spray recommendation. Where a mixture of 2,4-D and 2,4,5-T is used, add together the actual amount of each per gallon of material. One common formulation you might buy carries two pounds of 2,4-D and two pounds of 2,4,5-T per gallon, or a total of 4 pounds of active ingredients per gallon. Therefore, to get 6 pounds of "actual", you would have to put a gallon and a half of this formulation in 40 gallons of No. 2 diesel fuel

Here's a handy guide for smaller amounts:

WETTABLE POWDER — 1 pound of formulation per 100 gallons equals 1 tablespoonful per gallon.

LIQUIDS — 1 pint of formulation per 100 gallons equals 1 teaspoonful per gallon.

WHERE	WHAT	HOW
WOODY PLANTS As summer foliage spray (roadsides, fence rows, pastures, waste places, and the like)	2,4-D + 2,4,5-T (6 pounds in 150 gallons of water) Followed by 2,4,5-T if necessary	Effective treatment for brush from 4 to 6 feet tall. Taller brush should be cut and regrowth sprayed. Leaves and stems of all plants must be thoroughly wet. Use 2,4,5-T in oil as follow-up basal spray (see below) to get the difficult-to-kill species not controlled by foliage treatment. Keep livestock off areas where choke cherry or wild cherry have been sprayed. Be CAUTIOUS OF DRIFT TO SUSCEPTIBLE CROPS.
	OR: Ammate (80 pounds in 100 gallons or ¾ pound per gallon of water)	One application of ammate as effective as 2,4-D + 2,4,5-T. Ammate is a contact herbicide and kills or injures all above-ground parts which it contacts. The use of a spread-sticker normally gives better coverage and, therefore, better control.
As basal spray	2,4-D + 2,4,5-T (6 pounds in 40 gallons No. 2 diesel fuel) or 2,4,5-T (4 pounds in 40 gallons No 2 diesel fuel)	For best results, a uniform cover on the trunk or stem of plant from ground line to height of 18 inches is recommended. Basal spray gives as good or better control than foliage. Can be applied throughout season. AVOID TREATMENT JUST BEFORE PLANTS LEAF OUT IN SPRING. KILL HAS NOT BEEN CONSISTENT. Good kill is the result of good coverage. An excess of spray to run down on roots essential.
Stump treatment	2,4-D + 2,4,5-T (8 pounds in 40 gallons No. 2 diesel fuel) or 2,4,5-T (6 pounds in 40 gallons No 2 diesel fuel)	Results best when applied immediately after cutting. Root crown, exposed roots, sides, and cut surface of stumps must be covered. An excess of spray to run down on the roots essential.
POISON IVY	Amino Triazole (2 pounds in 100 gallons of water)	Spraying should be done after leaves are fully developed in late spring and summer. Plants should be thoroughly wet. Be careful to avoid drift to adjacent valuable plants.



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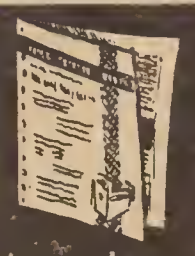
½ lb. per 100 gallons of water, or
½ to 1 lb. per acre in sufficient water to get uniform spray coverage on foliage and vines.

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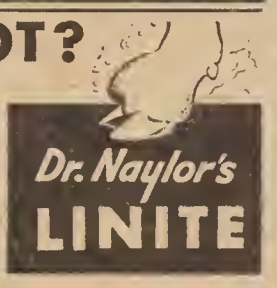
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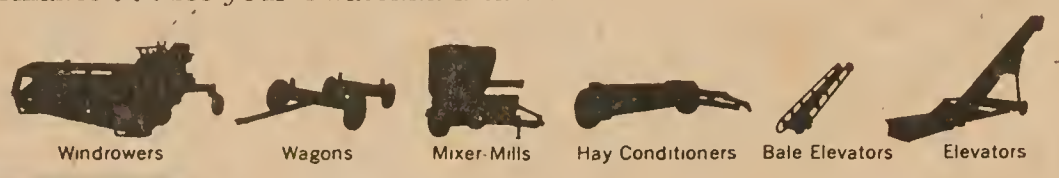
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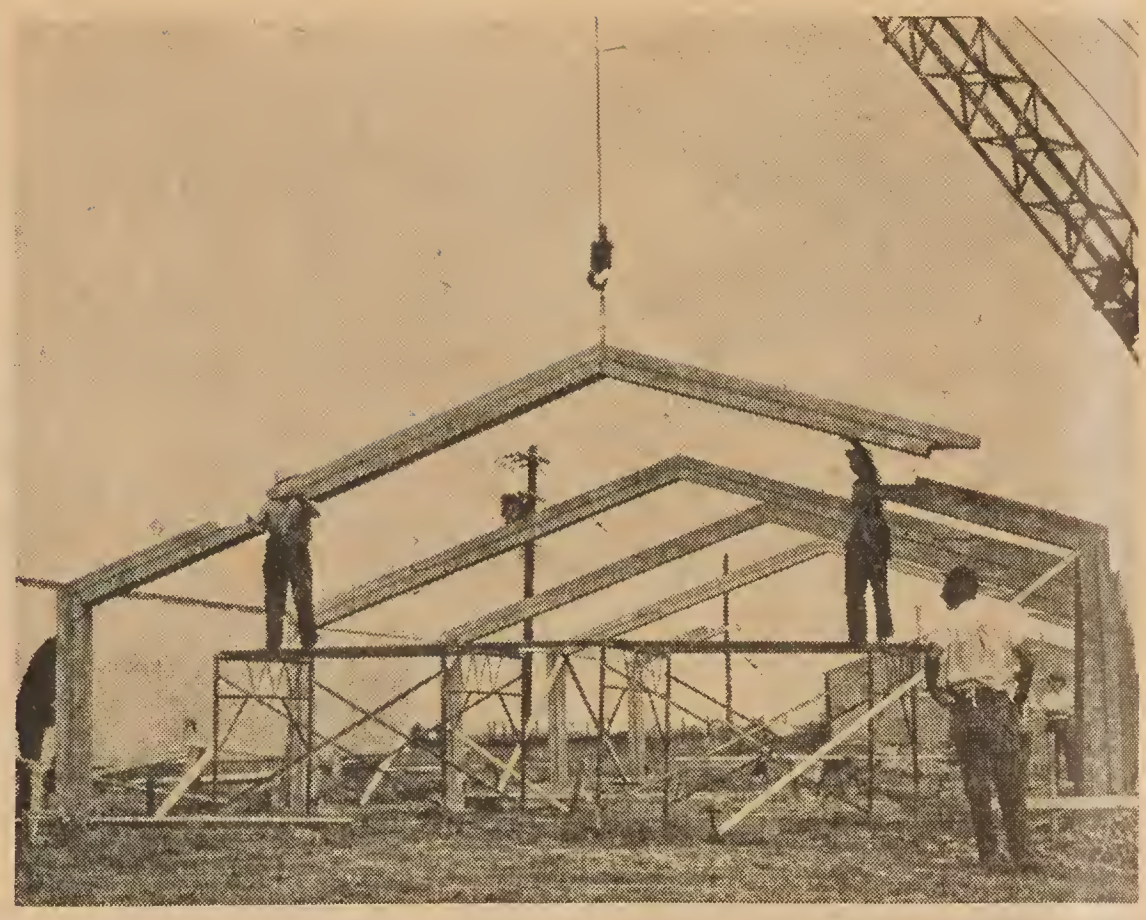
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Concrete Facts



A NEW IDEA in concrete farm buildings has just been unveiled by the University of Illinois, in cooperation with the Portland Cement Association, 33 West Grand Avenue, Chicago, Illinois. Called the rigid concrete frame, the structure is a three-piece wall and roof support cast in the products plant and bolted together on the job.

Foundation for the building consists of precast concrete footing boxes into which the legs of the frame are set. (See picture at right.) Sections of the rigid frame are joined with bolts at a scarf joint located approximately one-third the distance between the eave and the roof peak. (See picture above.)

Tilt-up concrete wall panels for the building can be cast either at a products plant or on the building site. For buildings that do not require insulation, 4 inch concrete walls are used. Six inch thick panels, with a 2 inch layer of expanded polystyrene in the middle, provide an insulated wall for livestock shelters.

The rigid frame will have application on the farm and at commercial and light industrial sites. Engineers believe that this new concrete structure will fill a need for a clear-span building that can be sold and erected at a package price.

Care of Your Pond

(Continued from Page 11)

weedkillers are copper sulfate, sodium arsenate, 2,4-D, and Amino triazole. But newer chemicals such as Aquathol and that referred to by the researchers as 2,4,5-T Propianic, are constantly being tested by research personnel, some of them being already commercially available.

Bulletin Available

For more detailed information about the use of chemicals for weed control and the management of your pond, send to the Mailing Room, College of Agriculture, Cornell University, Ithaca, N. Y. for a copy of Extension Bulletin 1014, entitled "How to Control Weeds and Algae in Farm Ponds."

With the weeds partly eliminated, now you can get down to adding fertilizer — just the ordinary garden kind, 5-10-5 or 10-10-10. The average is about 1,000 pounds per acre of pond surface per year. Fertilization should be started as soon as the pond is free of ice in early spring, and discontinued about mid-September. When the water begins to clear it is time for more fertilizer. A good way to check is to put one arm straight down into the water; if your fingers are visible, the pond needs fertilizer.

The fertilizer can be broadcast over the surface, but a simpler method is to cut the side out of the bag and place it (open end up) in one or two feet of water along a shore exposed to inflowing water or to wave action. Use an 80-pound bag of fertilizer per application in ponds of one-half acre or less.

There are beneficial effects to water weeds, too, of course. For example, the microscopic algae are important food for tiny animals which, in turn, may be eaten by fishes.

Even filamentous algae (those long, hairlike strands you see floating on top of the water) increase fish production, particularly in trout ponds, and they help by keeping the water cool for the trout, while increasing the population of water insects, the chief food of the trout.

Then, too, don't forget that aquatic plants add natural beauty to your pond.



Tune-Up Before Baling

By TOM CLAGUE

YOUR BALER is an efficient packaging machine. It picks up hay, compresses, slices, packs and binds it securely, and, if you like, throws it into a wagon. This is a machine worthy of any modern factory. In preparing to bale, it will pay you well to check over your baler so that you'll be ready to go when the hay's cured. One of the most important things you can do is go over the manual again to get yourself "in tune." And two things should be high on your list—slip clutches and the knotter.

Slip Clutches

Slip clutches are protective devices. Unless they **can** slip, you don't have any protection; you can tear up a power train or even ruin a crank simply because a slip clutch couldn't "give." Make sure that all clutches are free. If necessary, disassemble them and clean up all rusted parts so they can work as intended.

The knotter is very likely to be the most expensive part of your baler, especially if you price it by the pound. You probably protected it after you finished working last year with a lubricant of some kind. Clean it thoroughly now, making sure that everything is clean and can move freely, as it should. Set the twine tension—probably at three to six pounds; check with spring scales.

Check the hitch to see if all measurements are according to the manual. There are solid engineering reasons for these recommendations, and failure to follow them can be costly with a pto machine. The baler with an engine of its own won't have any problems here, of course.

Look over the power train from the tractor pto-shaft clear through the baler. See that the universal joints and telescoping section of the shaft are sound. Check shielding. Follow the power through the gear box, and check for excessive grease leakage — and the level of grease in the gear box.

Make sure the pick-up device is sound; that the fingers are not worn excessively. Check bearings, bushings, etc. When operating, keep ends of fingers about an inch from the ground to avoid picking up rocks and dirt, and to protect them. Heavier hay is easier to pick up than light hay.

Examine the part of the baler that takes the hay from a pick-up to the packer fingers and compression chamber to be sure that everything is sound, operable, and not too much worn. This may involve a raddle and fingers, or an auger.

Test the packer fingers and the whole compression section of the baler. Fingers feed material into the chamber, and the stroke can be adjusted—longer for lighter material, shorter for heavy material. Turn the flywheel through a complete cycle, by hand, just to check everything "in slow motion."

Sharpen the knives that do the slicing, if necessary. Dull knives make ragged-looking bales, and cause the baler to pull harder.

Check Shear-bolts

Some machines use shear-bolts for protective devices. If you need to replace a shear bolt, be sure to use the specified bolt, not just "any bolt that will fit." The specified bolt has a certain degree of hardness and strength to carry the necessary amount of load. Consequently, overloading will cause the bolt to fail. A too-strong bolt can't furnish the necessary protection because it won't fail soon enough; a bolt that is too weak could fail without good reason.

Lubricate thoroughly — by the book. This is especially important before the first use of the season. Attach the machine to the tractor, start it, and let it run slowly so you can watch and listen. When you are satisfied that it is operating all right, run it up to speed and check the rpm. If the tractor doesn't deliver full 540 rpm at the pto-shaft under load, you won't get the best possible performance from the baler.

As fine a packaging machine as your baler is, it can't make good hay out of a poor crop. You can help by raking hay into heavy windrows and driving in the same direction as you rake. Operate at the recommended speed, and vary the ground speed according to the heaviness of the windrow so the baler is neither under-fed nor over-fed. Check bale-chamber tension to get the bale density you want. Don't make bales too tight — they don't cure well on a drier—and there will be too much tension on the twine or wire.

After you've finished for the season, spend a few minutes making a list of things that need to be done before next season's use, and put it in the twine carrier. Protect critical parts (especially that knotter) with plenty of lubricant.

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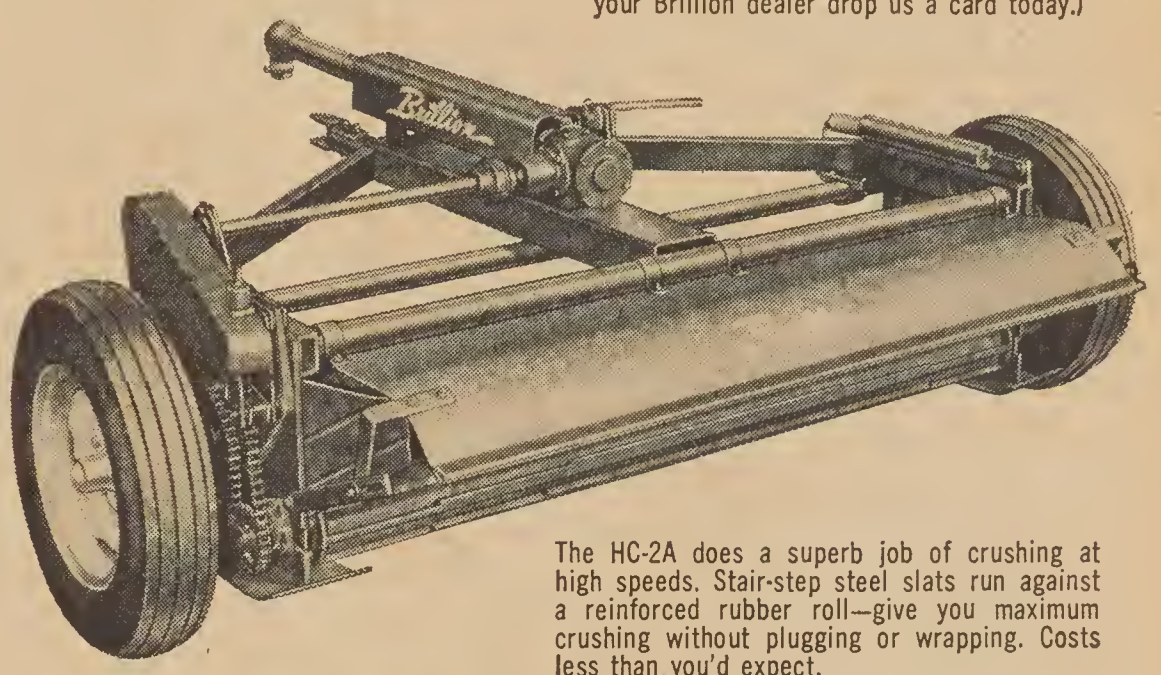
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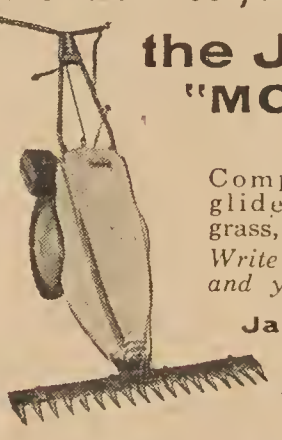
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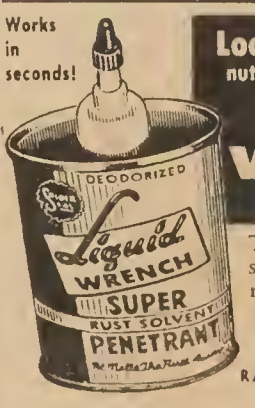
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CHARLOTTE, N. C.

Changes Are Needed In the Milk Business

PROFESSOR Bob Holland, head of Cornell's Dairy and Food Science Department, took time out from a busy schedule recently to answer your editor's questions about the dairy business. Here are the questions—and his viewpoints:

Dr. Holland, what is your prediction about future methods of testing milk?

Well, I am sure we will move toward using total solids as a base for payment of farmers, or maybe a combination of fat and protein. Milk processors making cheddar cheese, powdered milk, cottage cheese, etc. are interested in milk protein. Fat has become important in a negative way, protein in a positive way.

Rapid tests for milk solids and protein are already available; it's now a question of refining them for greatest simplicity and accuracy.

By the way, dairymen in the Netherlands are already selecting and breeding cattle for high milk protein production.

Since I'm predicting, I'd like to say that my crystal ball shows that consumption of cheese, both hard and cottage, will continue to go up in the years ahead. I think we need to promote cheese more and let consumers know that there are a great many types of delicious cheeses available.

We have been hearing plenty — too much, in fact—about the shrinking per capita consumption of milk. What's the trouble?

The two big items recently have been the nuclear fallout scare and the publicity about cholesterol. In spite of the headlines, the strontium 90 level in milk is being carefully monitored by very capable people, and no dietary changes are called for unless these people say a problem exists. Some misinformed people don't seem to realize that **commercially practical** equipment doesn't exist for the removal of strontium 90 from milk—and probably won't for several years.

As for cholesterol, remember that a pint of milk with a 3.5 butterfat test contains less than one-fourth of the normal daily fat intake of an adult. And besides, there seems to be little agreement among nutritionists about the specific effect of cholesterol on the body. Some saturated fats are needed by the body, and unsaturates can make up the other three-fourths of the supply.

Neither do folks seem to agree on what keeps midwestern milk out of the Northeast. What's the score, anyway?

Wisconsin and Minnesota dairymen could ship milk in here any time if one of our out-of-state inspectors were hired to check on their



Dr. R. E. Holland

farms and milk plants. Actually, the high freight cost of shipping milk is what really makes a barrier to fluid milk from the Midwest.

Personally, I don't think sterile whole milk is anything to get excited about as competition with our fluid supply. This product can be kept satisfactorily on the shelf for several months and it is fairly acceptable to the taste if properly prepared, although it does have a distinct cooked flavor. But it isn't at present economically sound to ship all that water compared to shipping some form of concentrated milk product.

What about the effect of state milk laws on the milk business within the Northeast?

Well, many of these laws were passed to protect the dairy industry —but times change, and some of them have become shackles. For instance, workers in our Department recently developed a new type of cultured cream. Its flavor doesn't change for several months, whereas the flavor of regular sour cream is "shot" in a week or so.

The new product contains .2 percent or less of a vegetable stabilizer, something already used in even larger amounts in ice cream, cottage cheese dips, etc. But New York State law says it is illegal to use a stabilizer in sour cream packaged in the State. So what happens? Midwestern manufacturers (who can legally use a stabilizer) can ship this new product into the Northeast under a trade name to sell to our customers! They also capitalize on our research, while New York producers cannot use it.

So it goes with other products. For bottled milk two enzymatic preparations are available (Enzylac and Lactivase) that help prevent the oxidized flavors which sometimes plague our milk supplies. They are completely harmless, very effective, and impart no flavor of their own to milk—but the law says "no additives."

The whipping cream manufacturer discovered some time ago that he could use a stabilizer with vegetable fats, making whipped cream "stand up" for days. But State milk laws forbid such additives, and the sale of dairy whipping cream has practically vanished. You know, legal barriers that protect something today may become stumbling blocks tomorrow!

What about low fat milk? Is its sale affected by these laws, too?

Yes. It's illegal in New York State to remove any of the fat of milk unless the resulting product is labeled and sold as skimmed milk. Milk cannot be standardized to a desired butterfat level by adding or removing butterfat. Instead, milk of varying butterfat content must be blended to give the desired fat level — if you want to call it milk on the label. Sources of high and low fat milk may be hard to find and blend.

Personally, I think we are missing a bet on this low fat milk. Many consumers seem to want it, and we are just losing business for the dairy industry by refusing to allow standardization.

You've already mentioned flavor of dairy products, Dr. Holland. What is the present picture on milk flavor.

Not so good. In April, 1961, we drew milk samples from every bottling plant in two upstate New York counties. Sixty-one percent of the samples of regular milk and 69 percent of the homogenized had objectionable flavors. Very recently we checked milk from 39 plants in southeastern New York — milk due for consumer delivery on April 19, 1962. Fifty-one percent of these samples had objectionable flavors.

For greater consumer acceptance of milk we surely need to improve!

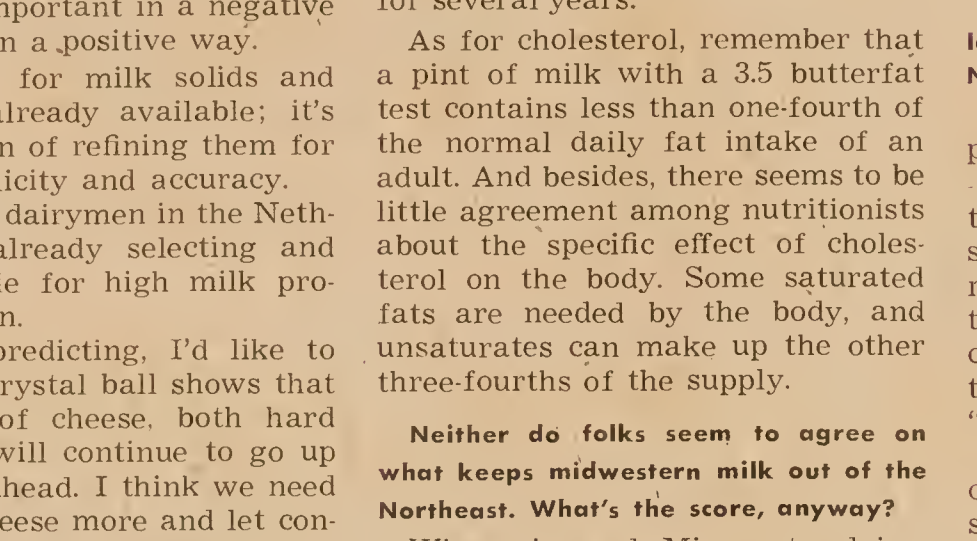
Why should an individual dairyman be concerned about milk flavor, and what can he do?

For the long-run interests of the dairy business, farmers need to work at providing a better-tasting milk. Vermont has shown what can be accomplished in flavor improvement—they have done a fine job. Per capita consumption in that area has increased, while it has dropped in the rest of the country.

Feed flavors are the most common cause of problems in milk. Some important things to do include feeding silage after milking, and doing everything possible to ventilate the stable so odors don't build up. County agents can give advice on other things to help keep milk what it should be—a mighty tasty beverage!

What is your personal attitude on milk promotion?

I believe in it. The quality of ADA advertising is topnotch. Any dairyman, in my opinion, should support advertising of his product.



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GLF Quality

NEWS and VIEWS from New York and Pennsylvania

Postponed — New York State inspection of all livestock slaughtered for sale, which was expected to start July 1 this year, **has been postponed until March 1, 1963.**

In the coming issue of AMERICAN AGRICULTURIST we will have an article explaining in detail what is involved in meat inspection as it affects not only meat packers etc., but the farmer who wants to butcher his own meat, or sell some to his neighbors.

Field Days — August 15 and 16 have been set for the Farm Equipment Field Days at Colby Homestead, Spencerport, N. Y.

The first day will be given over to forage crops and machinery for handling them. Since the Colby operation is as near a push-button operation as anything in the State, many dairymen will find much of interest.

On the 16th the emphasis will be on field crops, especially potatoes. The operation of the flume conveyor to run potatoes from the store house to the packing room by water will be demonstrated; and potato harvesting equipment will be used on an acre of early potatoes already planted for this purpose.

Chain saws will be at work in woodland adjacent to the other demonstrations, while a demonstration of terracing and tile draining will be under the supervision of the Soil Conservation Service.

Champions — Miss Roselie Kelly of Philadelphia and Mrs. John R. Hess, Oreland, were named Pennsylvania's champion chicken cooks, winning a trip to the National Chicken Cooking Contest at Harrington, Delaware, this month, and in addition Miss Kelley received an electric Sunbeam egg cooker. Grand prize at Harrington is a custom-designed Westinghouse kitchen, and $400 in cash towards its installation.

Retiring — Dr. Maurice C. Bond retires as Cornell's Director of Extension on July 1, after almost 35 years with the University.

Dr. Bond was professor of marketing and project leader of Extension work before assuming the directorship in 1954. It was a difficult period, when the Extension work was separated from the State Farm and Home Bureau Federations, and many adjustments had to be made.

During his term in office, membership in the State's 4-H clubs has grown from 56,345 in 1954 to 66,498 at present, and the work has been broadened in scope to include young people in suburban centers.

Dr. and Mrs. Bond plan to keep their home in Ithaca, and their retirement will start with a camping trip across the country this summer, including visits to the national parks and scenic places of the West.

Cheese—Production of cheese reached 225 million pounds last year in New York State, an all-time high record. More than 1.2 billion pounds of milk were used in the production of the various cheeses, said Herbert R. Kling, director of the Division of Milk Control, 35 percent of the total amount of milk used in manufacture in dairy plants.

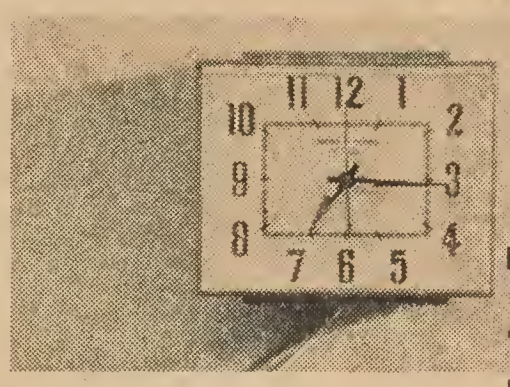
First — The Pennsylvania Department of Agriculture scored two national "firsts" with the publishing of a study of wholesale food handling in the Scranton and Wilkes Barre metropolitan areas. It is the first study of its type completed by a State department of agriculture, and also the first time a study on food marketing facilities has been made on a regional rather than a single study basis. It is expected to be of help in urban redevelopment and in planning long-term economic growth of the region.

Elected — Directors of the Empire Livestock Marketing Cooperative elected at the 16th annual stockholders' meeting were: two-year terms—J. Stanley Earl, Unadilla; Eugene P. Forrestal, Medina; Theodore P. Gibson, Canton; Clarence E. Johncox, Corfu; Clayton G. White, Stow; and Grover C. Guernsey, Schoharie.

Elected to a one year term to replace Seymour K. Rodenhurst, Theresa, was Lester W. Martin of Milford. Continuing on the 12-man board are William E. Bensley, Springville; E. H. Fallon, Ithaca; R. Stephen Hawley, Batavia; Alex Rabeler, Sr., Bovina Center; and Leland D. Smith, Brasher Falls.



Maurice C. Bond, retiring Director of Extension at Cornell, greets New York State's delegates to the National 4-H Club Conference in Washington. Left to right in picture: Sterling Swartout, Jefferson County; Linda Lee Shaw, Cayuga County; Director Bond; Evelyn Silsby, Niagara County; and William Wright, Cortland County.



Two Essential Haymaking Tools?



Two June boons to making high quality hay are your clock and radio, for accurate weather forecasts at set times.

Hay cut in early June gives high milk yield per acre. June hay-curing weather can be tricky, and Cornell research proves that avoiding rain damage pays off!

Cutting Date	Treatment	Digestible Dry Matter
June 10	Heat dried, no weathering	67%
June 10	Deliberately weathered, then field-cured	57%
July 8	Heat dried, no weathering	52%

Your best radio guide to good hay-curing weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Plattsburgh	WEAV-FM	99.9 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

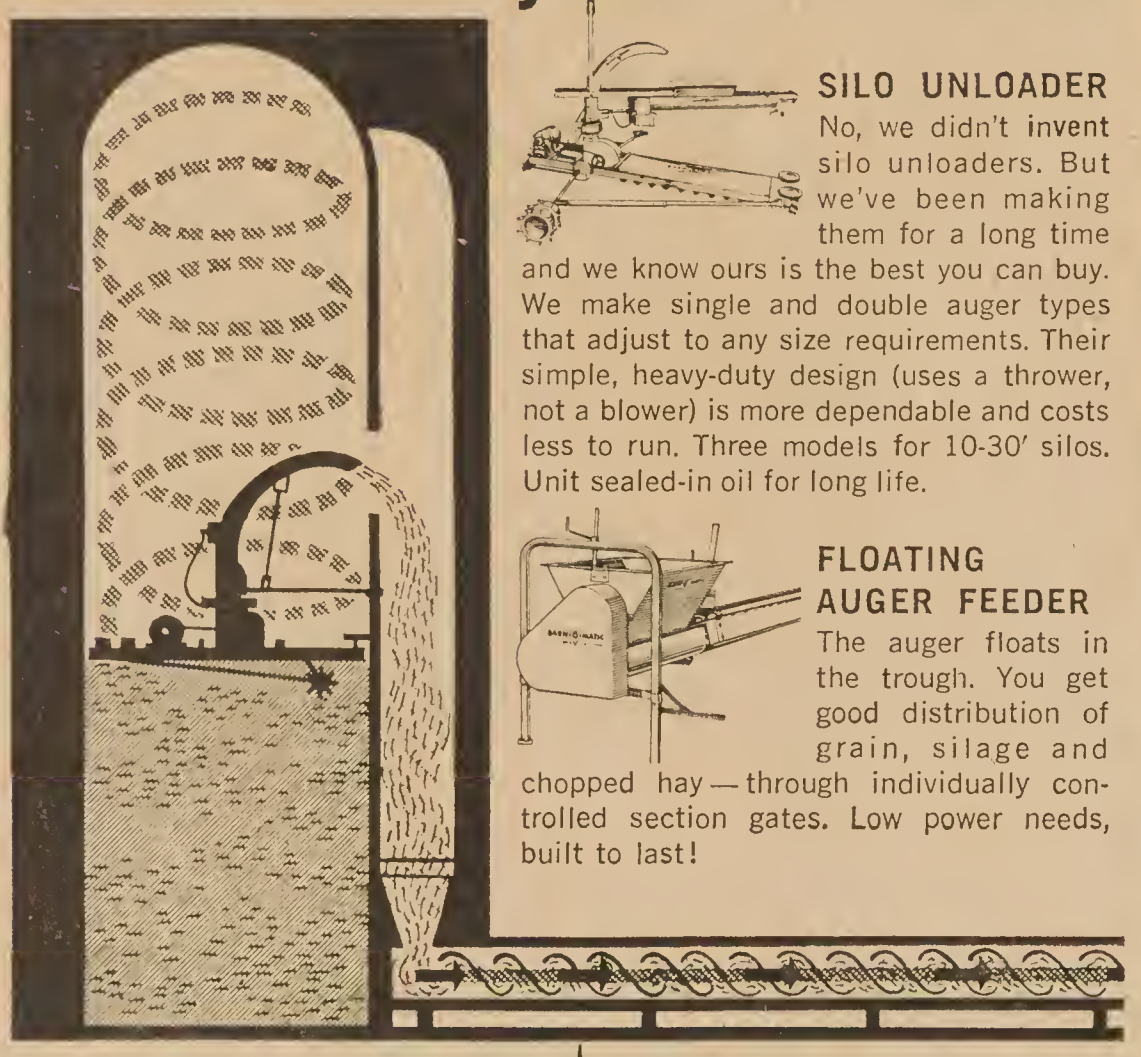
Auburn	WMBO	1340 kc.	Plattsburgh	WEAV	960 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Remsen-Utica	WREM	1480 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTKO	1470 kc.	Scranton, Pa.	WEJL	630 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WHEN	620 kc.
Newark	WACK	1420 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Walton	WDLA	1270 kc.
Olean	WHDL	1450 kc.			

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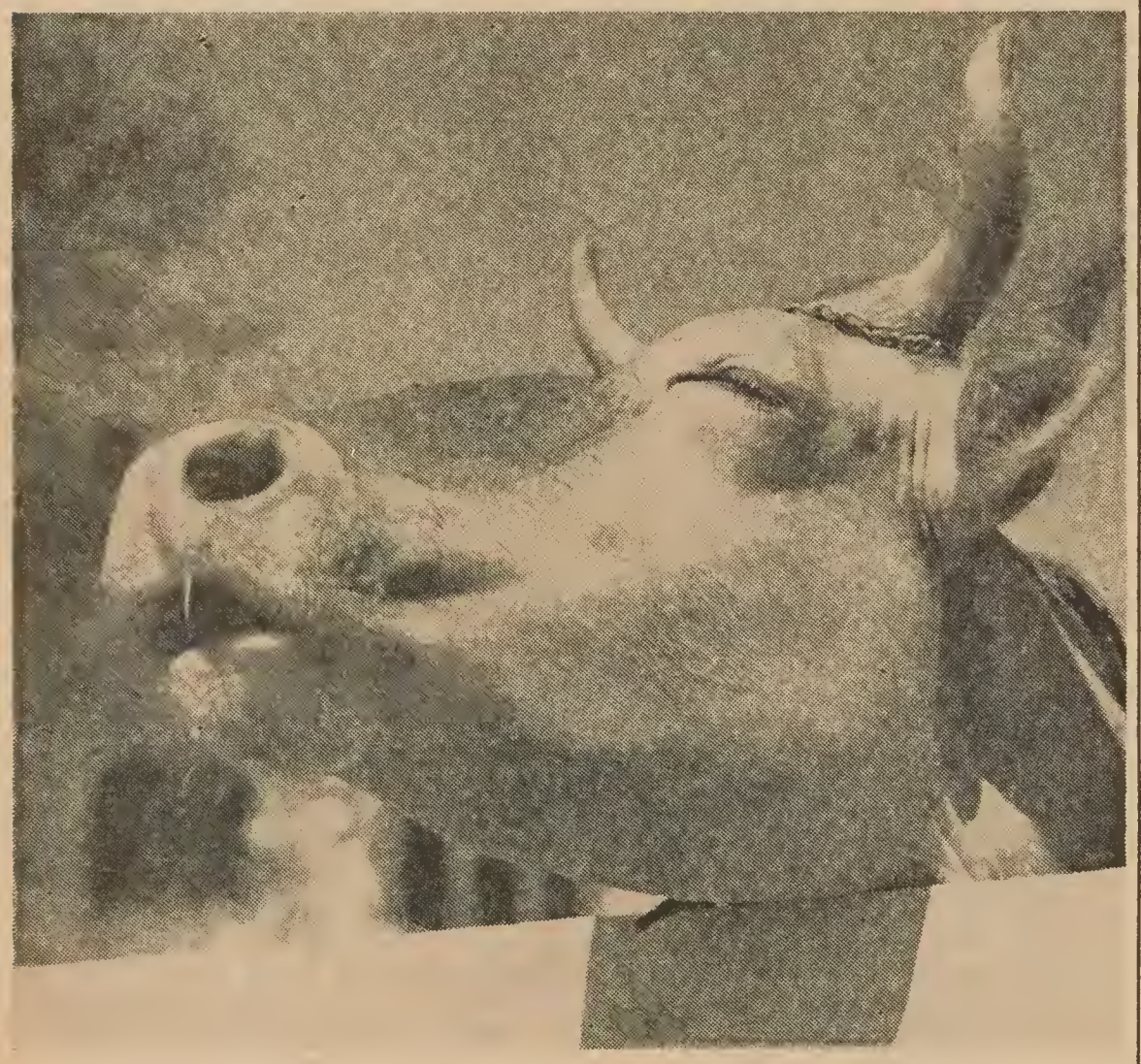
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Watkins Glen, New York



Partners John Wilcox (left) and Cortland Sturtevant in pen stable.

Stalls In Loose Housing

Cow enters stall at Elmer Martin farm.

A NEW CONCEPT in housing dairy cattle has come down the pike. It attempts to combine the virtues of pen stabling and conventional stables. At least one manufaeturer (Chore Boy Mfg. Co., Cambridge City, Indiana) has already developed a package unit for what the company calls "free-stall housing."

Cows head into the stalls so manure drops to the concrete aisle where it can be removed with a tractor blade. Bedding requirements have been reduced in some experiments.

Elmer Martin, Chambersburg, Franklin County, Pennsylvania, is using a similar setup he built himself. He has a pole barn that is 76' square; inside there are individual stalls for his 73 cows. Elmer believes that everyone, ineluding a eow, needs a chance for a little privacy now and then. The stalls allow cows to come and go as they please but still have a "plaee of their own."

Near Galway, in New York State's Saratoga County, partners Cortland Sturtevant and John Wilcox run their 42 milkers and 8 heifers due to freshen this spring in similar stalls. Each "cow compartment" is 4' x 7½'; there is an alley 10' wide between the two rows of stalls.

Sturtevant says one of the big advantages over regular loose housing is that mueh less bedding is used. In faet, he says that 13 heifers in regular loose housing took as mueh bedding last season as did the entire milking herd. Chopped hay was used for bedding last winter, but they switched to sawdust this spring and find the advantage even greater with the latter material.

In their previous loose housing setup, Cort and John used to notice that the manure paek always got pretty sloppy in the spring. Cold, dry, winter air kept the paek dry, but when it began to warm up in the spring problems developed that required extra bedding. This situation seems to be entirely overcome by using the stalls.

Stall floors are of dirt rather than cement—a very important eonsideration, Cort says. The original level of the dirt floor is six inehes below the level of the conerete alley; bedding builds up here to bring the "bed" level toward the top of the four-inch curb running along the alleyway at the rear of the stalls. Cort says if they were building again they would increase the height of this curb by two or three inehes.

An additional advantage is cow cleanliness—"the white cows look white." Also, Cort comments that cows in heat do not disturb the rest of the herd as much in the stall

(Continued on Opposite Page)

Farm Questions Answered

What can I do to prevent hens from eating eggs?

If you are feeding a well-balanced poultry ration together with oystershells you should have good strong shells and this should not be a problem. However, if nests are not darkened there is a possibility that the birds, after learning they can break the eggs, keep moving around and breaking the eggs so they can eat them. Usually if the nests are darkened and in a darkened area, this is not nearly as much of a problem. Of course, it is also necessary that the nests have a good deep litter in them, and this can be supplied by using sawdust, shavings, STAZDRY, or even chopped straw.

If the birds are not getting a balanced ration they cannot synthesize the calcium from the oyster shells, and therefore the calcium would be of no value. I would recommend that you feed your birds a balanced laying mash, if you are not already doing so.

We prefer the all-mash system due to the fact that if you use a mash and grain system and then feed too much grain the birds do not get the essential elements that they need, and consequently cannot always use all of the nutrients to advantage. If you give them a well-balanced laying mash, everything that the bird needs should be in this mash and they can make the most efficient use of all the ingredients.

It is sometimes difficult for people to understand that even though the oystershell is being supplied the birds do not always use it. For instance, if the birds were getting an inadequate amount of vitamin D they would not use the calcium in the ration and therefore would still lay very poorly-shelled eggs.

Another treatment you might try would be to debeak the birds. Then if a hen picks against an egg shell, or against another bird, it tends to hurt her and she will stop picking. This is usually done with an electric debeaker, and you could probably get it done through your feed serviceman or perhaps your county agricultural agent. If the shells are strong at all and you debeak the birds, I am sure that this should stop the trouble. — *Charles Ostrander, Cornell University*

Is putting high moisture shelled corn in the silo practical?

Yes, but best results come from using a glass-lined, air-tight silo.

What makes asparagus grow spindly? It was worked early, and on 2 100-foot rows I put 80 lbs. of 5-10-5 fertilizer and 100 pounds of salt.

There seems to be some variation in individual asparagus plants—and, also, as the bed gets older the spears get smaller. The growth harvested this year is influenced very little by fertilizer you put on this year.

I would suggest two things: fertilizer put on this year may help the size of the spears next year. There is some question about the value of salt, but asparagus does like lime, and it might help to put on a liberal application of that. Then, if the bed is old and doesn't improve, about the only thing to do is to set out a new one.

How late can alfalfa or other legumes be pastured without damage?

Don't graze or cut legumes later than 4 weeks before the average date of the first killing frost in your area.

Can forage crops be seeded in the fall?

The chances of successful seedings in the northern part of the northeastern states at this time of the year are not too good. Alfalfa is a reasonably good bet when seeded by the middle of August in areas with rather long growing seasons. In northern New York and in Vermont I question whether you would have as good a chance of establishing a successful forage seeding in August as compared to seeding in the spring. The plants do not have time enough to make sufficient growth to survive the winter.—*Prof. Walter L. Griffeth*

How much does frosting damage corn for silage?

Very little if it can be put in the silo at once, but the longer it stands, the greater the loss.

Do you know of farmers who have successfully owned farm machinery in partnership?

Yes. It is one way to cut equipment costs. Two or more owners must be willing to give and take. A big disadvantage is that owners are likely to want use of equipment at the same time. Probably the most common joint ownership is where father and son own separate farms but work them together.

STALLS IN LOOSE HOUSING

(Continued from Opposite Page)

system as they did in the previous arrangement.

It takes one man 15 minutes twice a day to clean manure from stalls and place it in the alley; a rear end scraper on a tractor moves manure along the alley into the spreader. Manure is cleaned out of the alley three times a week, taking one man about two hours to do the job each time, including spreading in the field.

Asked about whether the same cow always goes to the same stall, Cort says, "A few—the older ones and the boss cows—always go in the same stall. However, the rest of them go into whichever one is handy." He reports that all cows now go into the stalls every night, although there were three or four mavericks at first that had to be driven into a stall and held in with a rope behind them for two or three nights. The "training" job was not a problem, though.

John and Cort plan to run their heifers in a separate loose housing barn next year as in the past, with the addition of one modification—the same free choice stall system used for the milking herd.—*GLC*



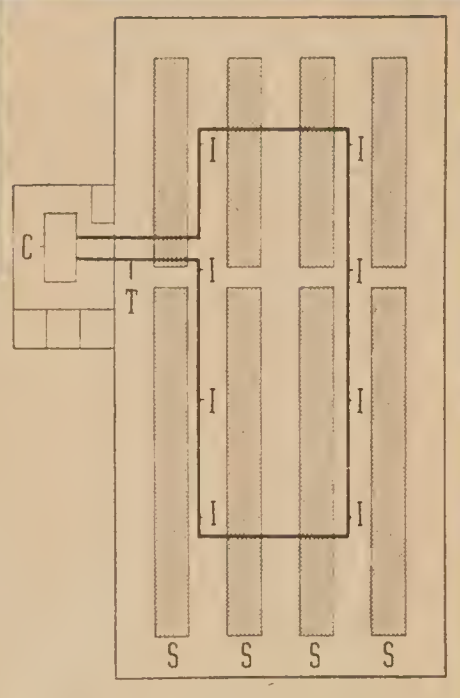
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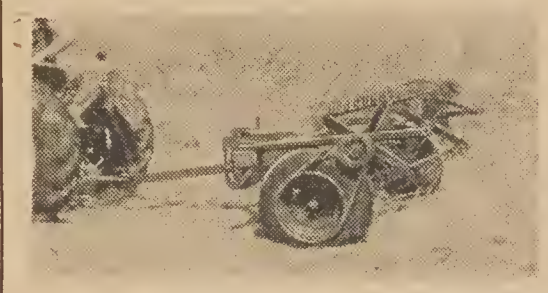
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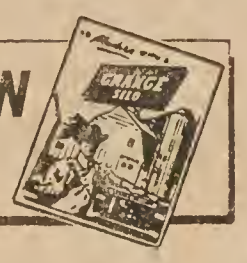
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GEESE AND GULLS

GEESE, especially the big Canada honkers, are no novelty in this lake-surrounded area. However, to have the geese stay so long is a change. For years, we used to take Sunday afternoon drives down along Cayuga Lake to watch the big flocks rafting out on the water, and then to thrill to their flight as they left for the evening feeding in corn fields (last year's stalks) or wheat fields.

But now, these last two or three years, we can see them every day right here. The estimates range up to a couple of thousand birds feeding on one of our wheat fields every morning. Smaller flocks come into the corn fields. A few snow geese have put in an appearance, as well as an occasional mallard.

Brave Birds

A small bunch of heifers running in some corn stalks bravely approached a fair-sized flock of feeding Canadas the other morning, but the geese paid them no heed. We plowed to within 75 yards of them and might have got closer if we kept moving. Once we stopped and climbed off, they took alarm. A busy airport with planes coming and going has always thrilled me, but nothing like seeing a big bunch of these honkers set their wings and drop in.

Another wonder of the outdoors has happened several times this spring. We will be plowing along with not a bird in sight. Suddenly, a sea gull will circle and light and start eating worms. Within minutes there will be a flock of 25-50 gulls. Where do they come from?

After this happened a few times, I shut down the tractor and watched as soon as the first one landed. Apparently, they fly over at great height from the lake to the Auburn city dump, so we don't normally see them. But they can spot another gull landing from a considerable distance, and so here they come—dropping down at great speed lest they miss something choice.

Once on the ground, they remind me of when the boys were small. They would each have a tin can for worms—and would each want to be first up the furrow. These gulls keep passing each other by short flights so as to be close behind the plow.

GARDENS

There was a time when we lived in the Chicago suburbs and I toiled at a desk in an air-conditioned office. Getting out in the garden was a real satisfaction and, under the tender care it received, it did wonderfully well.

As a farmer, I no longer look forward to more time with "green growing things." In fact, as the years roll along, our gardening becomes simpler and simpler.

First off, I've finally learned to plow up no more than Doris feels she wants to care for. Secondly, we've settled on a uniform width of row so the 4-row cultivators can be used. Lastly, all plants not able to stand 2,4-D are put at one side of the patch so the rest can be sprayed. Sweet corn, onions, and tomatoes are fast getting to be the only items of importance.

Possibly all this sounds foolish when we have the land, tools, and know-how. But frankly, when a garden is no longer a source of recrea tion—and it surely can't compete with swimming or picnicking or any of a dozen other summer activities—then the only real reason for having a garden is economic. I doubt if we can raise most garden items much cheaper than we can buy them.

Obviously, this is a far departure from the way we were brought up—or the way we did when we started to farm. Just another indication of change and specialization, I suppose. Likewise, we no longer raise our own pork, poultry, eggs, potatoes, or fruit. Possibly we are missing something by not having our own home-grown food, but we sure don't miss the need to weed and hoe a big garden when summer pleasures beckon.

WEATHER

It's been an unusual spring, hasn't it? Or has it? One oldster I know contends that the most common trait of weather is its wide variation from any "normal."

At any rate, the dry fall, the dry open winter, the deep frost in the ground, plus the dry spring to date, makes one hope for lots of rain this summer. The sub-soil moisture is unusually low; current rainfall will be very important. In the meantime, it was nice in some fields to be able to plow right through the low spots which have been troublesome in some years.

GADGETS

Perhaps the best $100 we ever spent for a gadget was when we bought an air compressor. That was twelve or fourteen years ago and I wouldn't know how many hundreds of times it has been used. It is belted to its own electric motor and we have it on a child's express wagon so we can move it readily—just so long as we can reach an electrical outlet.

It's taken many a ride in the back of the truck to barns where we had machinery stored that needed tires brought up to round. Probably tires last longer because we tend to keep them blown up better.

With a different tip which came with it, this compressor is my last resort when I can't get a milker pulsator to work. A few blasts of air will usually clear out any dust or dirt. As a paint-spraying outfit, it might be of more help if the can

(Continued on Opposite Page)

Gayway Farm Notes

(Continued from Opposite Page)

which came with it was larger. We have sprayed a few small jobs — floors of a new hay rack or the sides for silage wagons.

MEASURED ACREAGE

I'm wondering if the ASC county committee shouldn't be required to send notice of measured wheat acreage to every grower early each spring—say by March 15. This would enable the grower to make decisions about putting on grass seed, or plowing up extra acreage.

Last year, I found out in June that I was over on my planted acreage. This year, rather than lose the use of some land if I was overplanted, I asked for the measured acreage figure on March 20. By dint of much prodding, I got it on April 24! Numerous people have indicated they have the same problem.

ATRAZINE

The almost complete control of quack and nut grass in one of our corn fields where we used Atrazine last year sure sold us on its value on problem fields. We have another field this year which will get the treatment. There can be no question about the added yields due to Atrazine on fields infested with nut or quack grass, but 2,4-D still is satisfactory on most fields.

Last year we almost "blew our gasket" trying to get the Atrazine powder into the spray barrels. The right way, we found out later, is to mix up the powder and a little water to make a syrup and then pour that into the barrels.

The way we did it would drive one crazy. It blew around, it got wet, it stuck to our hands, it didn't dissolve, and so on and on. So late we get smart!

ROTARY MOWER

We're pleased as punch with the rotary mower for pastures. It wades right through on the soaking wet days which seem to be the only times we can get at the job. The sickle bar mowers always gave us a hard time under these conditions.

However, the rotary machine has its limitations, too. We broke our hay conditioner one day and rather than leave the hay unconditioned and risk losing a day of baling we cranked down the blades to about 3 inches and mowed hay with the rotary outfit. One can move right along with this machine even in heavily lodged hay—but the machine just doesn't pick up enough of the hay to do any kind of a mowing job.

Even with the back shields out, the amount of "conditioning" was extreme so the hay that does get cut off is pretty well beaten up and hard to pick up with rake and baler. Of course, it does cure fast with few stems to worry about and the cut hay well up off the ground on the long stubble. It's simply a case of trying to use a good machine for the wrong job.

Country Pastor

"Let Them In"

By Arthur Moody

"LET THEM In" were the words carved over a side entrance to a new church building. A thoughtful visitor asked: "Let whom in?" The pastor explained, "Why — the children, of course," whereupon the visitor asked a transfixing question: "Who put them out?"

Jesus said: "Let the little ones come to me. Forbid them not, for of such is the Kingdom of Heaven." This firm desire was an answer to the over-solicitous disciples who denied mothers wishing to have Jesus bless their children. The record states: "He took them in His arms and blessed them."



ARTHUR MOODY

When Jesus entered Jerusalem on Palm Sunday, and when he went to the Temple, the children sang hosannahs. But when the chief priests and the Pharisees heard the children crying in the Temple and singing "Hosannah to the Son of David" they were displeased. When they remonstrated, Jesus said: "Have ye not read: 'Out of the mouths of babes and sucklings Thou has perfected praise?' "

Many modern people who object to children in church may never have heard a children's choir, or noted the intense devotion with which they participate. They would be reminded of Isaiah's words: "A little child shall lead them" in his prophesy of peace. The potential of children should be emphatically emphasized — even dramatized — on Children's Day.

These Little Pigs

(Continued from Page 3)

before they leave the "nursery."

Castration is done just before weaning, usually in the third week. Jack vaccinates pigs himself for cholera and erysipelas at about six weeks of age. He buys the serum—and also a combination of penicillin and streptomycin that has a six month shelf life—from a pharmaceutical supply company. The antibiotics are used for various ailments. Injectible iron is another item in the medicine cabinet; each pig is "shot" with 2 c.c. within two to four days after birth.

To see Jack work with his livestock—including 75 head of Angus cattle—you would never guess he came to this farm twenty years ago from a job as an accountant in New York City. He and his wife Ruth are glad they raised their children on a farm—John is an engineer with I.B.M.; Richard is a student at the University of Maryland; Robert, Kenneth, and Janet are all in high school.

It's a busy place at the Reohr household. Exchange students from foreign lands often live with the family, and its location on a sweeping curve of Route 34 B seems to funnel travelers to the house for help with such things as flat tires, empty gas tanks, or to use a telephone. Among other activities, Jack serves on the local school board.

Amidst all this extracurricular activity, the Reohrs don't neglect their livestock. There's just a chance that you and I have eaten a pork chop that started from these fertile Cayuga County acres.



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I WAS JUST FIGURING...

—by Cy Watkins



COWS, CALVES and the SUMMER SLUMP

Man and nature work at cross purposes sometimes. and together they pull a dirty trick on most cows every summer.

Just think about this situation for a minute. Man has changed the cow's natural reproductive cycle. Calves were meant to be dropped in the Spring, not in the Fall. And as nature planned it, when the calf's demand for milk increased, grass would get lush and **stimulate** even greater milk production for a time to finish nursing the calf.

This was nature's plan, but we've switched it around and it's caused an almost overwhelming (and unnatural) nutritional demand on a cow . . . just at the time when most farmers cut back on the concentrates. So now, when lush pasture **stimulates** greater milk flow the way nature intended, she's not nursing a calf . . . she's developing a calf fetus . . . and yet we take the milk anyway. This means we've increased the nutritional demand on the cow's body . . . but cut back on her nutrient intake.

So while you **do** get the increased milk flow from the stimulation of lush pasture (for a few weeks), you are actually putting the cow and calf she's developing under great stress. As soon as the lush grass stimulation declines, she will go into a rapid slump . . . the "summer slump" . . . which is really a reaction to a sort of mid-summer starvation.

The worst part is that this sends her into her next lactation with lowered body reserves, and can cause lowered production next time around. At the same time, it can cause the development of calves that aren't as strong and thrifty at birth as they could be.

So it's a bad deal all around to rely too heavily on pasture. Watkins says, PASTURE ALONE IS NOT ENOUGH (in most practical farm situations) to keep a modern cow in good physical condition, build a good calf, and maintain maximum milk output.

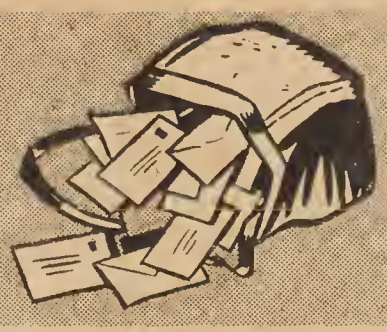
On the Watkins Program, we recommend that dairymen continue a full, (but reduced) program of feeding the necessary nutrients in a balanced, concentrated form. We recommend the feeding of at least 4 pounds of grain and ½ pound of MIN-VITE fortified protein supplement daily . . . in addition to your pasture and hay.

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Readers Tell Us!



HYBRID POPLARS

Since reading an article on hybrid poplars several years ago, and knowing what hybrid corn has done for farmers, I have been experimenting with them to some extent. I am especially interested in developing a technology of planting and eare with available farm maehinery.

Poplars are indeed amazingly rapid growers, and when properly eared for obtain maximum growth from the first year. A pulp company in Ottawa reports an average upward growth of 6 feet per year, the first erop harvested in 8 years. Warmer locations report growths of 9 feet per year.

There are, of eourse, other markets—such as lumber, excelsior, and lignin for the mushrooming plastic industries. Most luerative of all would probably be the produetion of veneer bolts for eheap plywood, berry baskets, and the like.

Within trueking distanee of a pulp mill where the roadside priee is, say, $20 per 4 foot eord, one can figure a gross ineome of $800 per aere over a period of 15 years. This is based on a total harvest of 40 eords—10 cords from the eighth year thinning, and 30 eords from the 15 year harvest. A higher gross income from veneer bolts would be somewhat offset by higher labor requirements for pruning. Pulpwood produetion requires about 10 days labor per aere, spread over 15 years.

Our federal experiment stations have been studying hundreds of different clones to select the fastest growing, most disease resistant, ete. It will be 10 to 20 years before they ean release one partieular elone as the best for a given locale. Mean time, it would seem a good idea to plant some of the best and do some seleetive thinning over the years.

Tree farming is a natural means of soil eonservation, and would take large acreages of farm land out of food produetion—and not at taxpayers' expense. Tree farming would prevent erosion, raise the water table, benefit wild life, produee more recreational areas, and reduce flooding. Every farmer has the neeessary equipment to plant this self-perpetuating crop that will add to his security. And a few acres planted at the birth of a child will put that child through college. Bulletins are available from the Superintendent of Doeuments at Washington.

—Ed McCullough, R.D.2, Owego N.Y.

IDEAL STATE

It has been said that the ideal state is one governed by an absolute despotism with God at the head. But I don't have much confidence in finding very many government bureauerats with God-like eharaeteristics. To put it more bluntly, I agree wholeheartedly with the president of the Ameriean Farm Bureau Federation that the administrators will not perform their duties with eomplete impartiality. There will be those who will take advantage of their position to put into effeet their own peeuliar ideas of soeial reform; and there will be those whose administrative deeisions will be guided by personal friendships.

While the laws of supply and demand as they function in a free ee onomic society are impersonal and oftentimes brutal so far as many individuals are eoneerned, I would rather entrust my fate to the workings of these laws than to the beneficient maehinations of a group of bureaueratic government administrators.

If this dairy control measure becomes law, I foresee an operation wherein a vast entrenched administrative organization will develop. It will, for purposes of practieal administration, eliminate the small dairyman in favor of the expansion of the large one who will be less diffieult to eontrol, and who will be in a position to provide more substantial favors, both political and otherwise, for any interested administrator. When this happens, the sueeessful dairyman will not neeessarily be the man who ean produce milk at the lowest eost, but the man who is most sueeessful in manipulating the administrators and the politieians.

—Irving B. Rymph, Lagrangeville, New York

Latest Score:

Cows vs. Flies

By John G. Matthysse*



THIS YEAR, onee again, man has eaught up to the flies. We have several new methods of fly eontrol that will give the eow and the dairyman real relief.

In the Barn

Coneerning the house fly, that foremost problem inside the dairy barn, we have a new residual inseetieide as well as a novel new method, baited ribbons — both approved for the first time: Dimethoate (Cygon) has been thoroughly tested sinee 1958, and eaeh year proved one of our most potent new fly killers. A single applieation in June eleaned up house flies for the season in most barns. In some barns, a seeond applieation in late July or August was neeessary. Not until 1962, however, were the thorough tests eompleted to prove safety and laek of milk eontamination.

To use dimethoate, mix 2 quarts of 50 pereent Cygon dimethoate soluble eoneentrate with 25 gallons of water. Spray to the point of run-off all walls, ceilings, stanehions, partitions, and other surfaees on whieh flies alight. This quantity will do an average 40-50 cow barn.

Before spraying, cover watering eups and feed troughs with old sacks, and clean out when finished. Don't spray with stoek in the barn, and do not spray in the milk room, nor directly eontaminate milking utensils. Dimethoate should not be used in poultry houses, but the same spray may be used to eontrol flies in beef, sheep, swine and horse barns.

Spraying is best done by a eommereial operator with an adequate power sprayer. Little good is done by applying just a few gallons from a hand or eompressed air tank-type sprayer. When using a power sprayer, reduce the pressure to 80 to 100 pounds so that large eoarse wetting drops come out of the nozzles. Spray as soon as flies beeome annoying in the barn, usually early June.

The baited ribbons (Geigy Snip Fly Bands) have also been proved very effeetive by four years of practieal tests in barns. The inseeticide is a earbamate, Dimetilan. This water soluble fly killer is present on the ribbons, mixed with a sugary bait, and the ribbons are hung by both ends—in a loop—from the ceiling.

Be sure to use the **full number** of ribbons neeessary. Buying one or two ribbons to try is useless—they won't work. It requires one ribbon per 100 square feet of eeiling area to kill flies fast enough to rid the barn of them. If the flies have gotten too much of a head start, use three ribbons per 200 square feet.

Although the ribbons are expensive, final cost is reasonable, as they last a full season and there is no cost of spraying involved. The only eaution in using the ribbons is not to hang them directly over milking utensils—the bulk tank, for example. Ribbons are approved for use in the milk room; also as a best bet for fly eontrol in poultry houses.

In some dairy regions other residual sprays will still work. Diazinon and Korlan are exeellent wherever there is no resistanee to them. Such areas are mainly where no eommereial barn spraying has been done. The only way really to find out is to spray the barn with Diazinon or Korlan.

*Entomology Department, Cornell University

(Continued on Opposite Page)

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Methods of spraying and precautions are similar to those for dimethoate. Read the label carefully and heed all cautions; don't use Diazinon near ducks or chickens. On the other hand, Korlan is safe to use around birds, animals, or man—and is also the cheapest. If a Diazinon or Korlan spray fails, don't try again with them—use dimethoate.

A new kit for Korlan spraying is available this season (Dow Chemical Co.) This is an excellent, easy way to spray barns. Essentially the idea is the same as home garden proportioner hose-on sprayers. The sprayer is simply attached to the water hose in the barn—no machinery is necessary.

Directions call for treating barns every two or three weeks. This may be necessary, as the concentration is lower than usually recommended for residual fly control. However, the job is an easy one, and cost is moderate, so that repeat spraying is practical.

Older Methods

Besides these new methods, the old tried and true fly killers are still effective. Resistance has eliminated only residual sprays, such as DDT, lindane, methoxychlor, etc. By the way, **don't** use DDT in the dairy barn in any case, because milk contamination will result.

Baits, space sprays, aerosols and manure treatments remain effective. The secret of good fly control with baits is to use enough bait, spread in many places in the barn.

Most space sprays and aerosols rely on pyrethrum plus synergist, and possibly Lethane or Thanite. Best results are obtained with automatic dispensers hung in the barn, mechanical barn foggers, or large special dairy aerosols. A good spray is 0.1 percent pyrethrins plus synergist, but this is expensive. One percent DDVP or Dibron are now approved for dairy barn fogging, and are inexpensive and effective.

Lastly, remember that the best chemical control of flies will yield best results only when supplemented with proper barn sanitation. Of number one importance as a fly source is the manure in calf pens. Clean calf pens frequently, or else treat regularly with larvicide such as Diazinon or Korlan.

Manure breeds most flies, but a plague of flies can come from leaky silos, wet feed or straw, and even manure-soaked barnyards. Of course, clean drops regularly, and do not tolerate manure piles during the summer.

On Pasture

A year ago there was no satisfactory control method for the face fly. This new—and now worst summertime pest of cattle and horses—has spread west as far as Wyoming and south into the Carolinas. At least for dairy cattle the 1962 control picture is bright; for youngstock and beef cattle there is as yet no good answer.

The suggested method for dairy cattle is a **sprayed-on** bait containing ½ percent DDVP. It can be purchased ready to use, or the dry concentrate can be diluted with water or syrup. Ready-to-use bait is convenient, but the material must be fresh, because DDVP gradually breaks down in sugar solution. One kind is packaged with a sprayer, and is easily measured and mixed.

The secret to **sprayed-on** bait is the special face fly sprayer set to apply just the right amount of bait to each cow. Using the sprayer and bait requires only walking down the line in front of the cows and giving each cow one puff of spray.

The dairyman must be his own judge on timing, but it is suggested that spraying be started in early June as soon as flies reach 10 per head. Treat daily just after milking, and continue treatments for two weeks.

If the daily spraying chore becomes too laborious and expensive, try every other day, but as soon as the fly numbers exceed 10 per head, go back to daily treatment. During late July and August, on hot sultry days, even the sprayed-on bait may fail at times.

No new methods have been developed for the usual biting flies. Every dairyman should use methoxychlor or malathion dust regularly for horn flies. The treatment is cheap, requires little labor and no equipment, and is the nearest thing to 100 percent control.

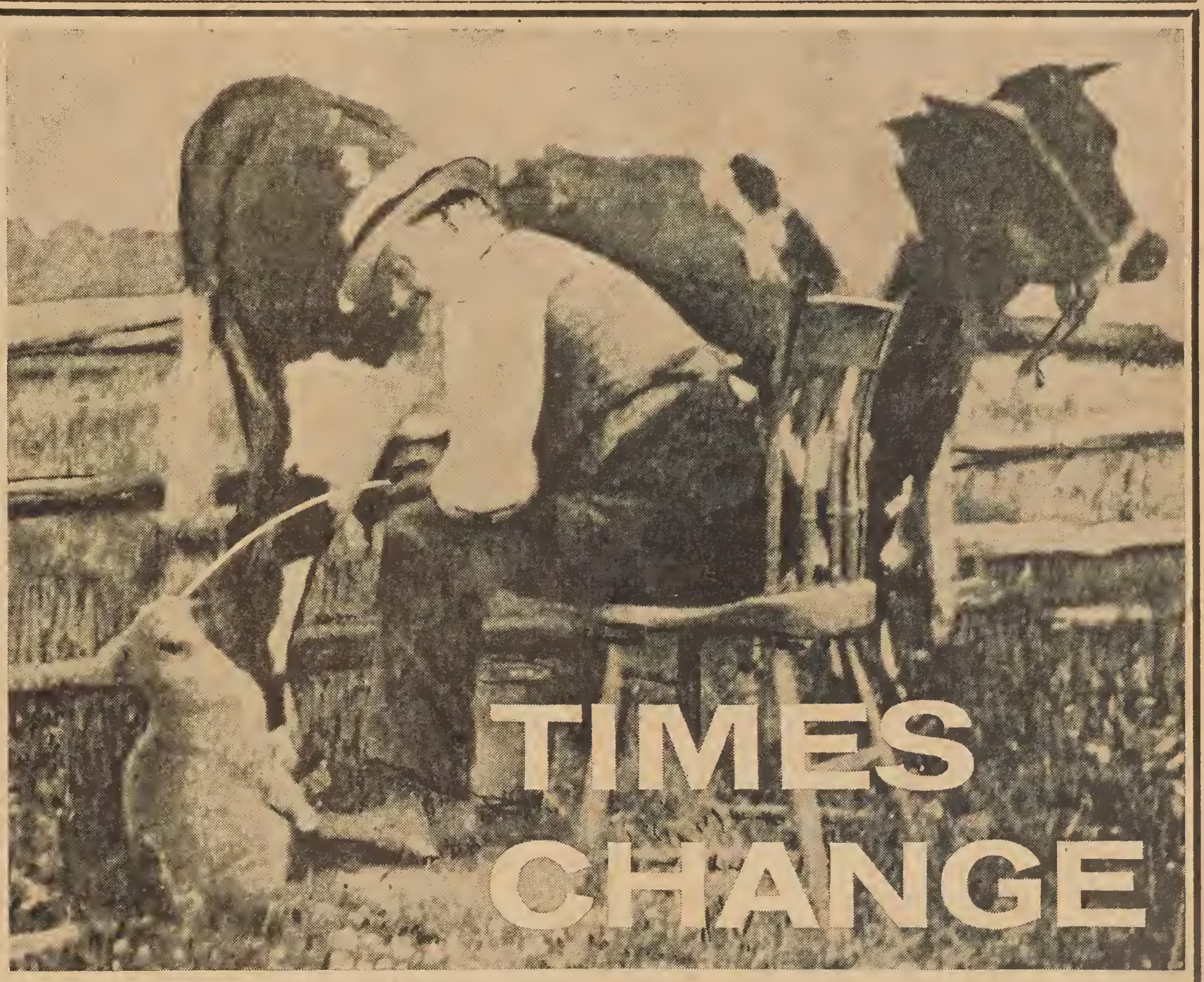
Horse flies, deer flies, stable flies and mosquitoes are the most difficult to control. These flies come to cattle only to suck blood, and our usual insecticides kill too slowly to stop biting. The flies will die later —but the damage has been done.

Careful research has shown that **repelling** biting flies pays big dividends in extra milk production. To obtain these dividends, enough stock spray per cow must be applied and the formula must be a good one. A good way thoroughly to spray all cows is an automatic cow sprayer or aerosol in the doorway.

A good job can also be done by hand-carried electric foggers or sprayers. You must aim at both sides of each cow; at least 1 to 2 ounces of stock spray per cow must be applied. The most effective treatment is water base emulsion sprayed from a compressed air or small power sprayer at 1 to 2 quarts per cow.

No matter which method is used, the spray should contain adequate amounts of pyrethrum, Lethane, Thanite, synergist and repellent. Effective repellents include Crag Fly Repellent, MGK 11, MGK 326, MGK 1207, and Tabatrex.

Read the label on every package of insecticide that you buy. Only by following label directions exactly will best results be achieved, with no danger to the cows, to the farmer, or to the consumer of milk.



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We have always been very well pleased with the results obtained from the ads placed in the Subscribers' Exchange of the *American Agriculturist*. — *Walter McIntyre, McIntyre Poultry Farm, Gowanda, New York.*

OH, MY ACHING BACK

Now! You can get the fast relief you need from nagging backache, headache and muscular aches and pains that often cause restless nights and miserable tired-out feelings. When these discomforts come on with over-exertion or stress and strain—you want relief—want it fast! Another disturbance may be mild bladder irritation following wrong food and drink—often setting up a restless uncomfortable feeling.

For quick relief get Doan's Pills. They work fast in 3 separate ways: 1. by speedy pain-relieving action to ease torment of nagging backache, headaches, muscular aches and pains. 2. by their soothing effect on bladder irritation. 3. by their mild diuretic action tending to increase output of the 15 miles of kidney tubes.

Find out how quickly this 3-way medicine goes to work. Enjoy a good night's sleep and the same happy relief millions have for over 60 years. Ask for new, large size and save money. Get Doan's Pills today!

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DAIRY MONTH
Food Specials

By Alberta D. Shackelton



This Almond Bavarian Cream garnished with fresh strawberries, makes a healthful and tempting dessert. See recipe below.

—Photo: National Dairy Council

DAIRY FOODS are never out of season! They mean delicious dishes, packed full of food value, for every family in the land. From breakfast to bedtime snack and from soup to dessert, there's a place to feature some form of dairy product. June is a good time to check and see if we are taking full advantage of these nutritious foods.

Everyone needs some milk every day—2 cups or more for the adult and 3 to 4 glasses or more for each child. Milk is a popular drink with meals or between meals, and what would the cook do without milk in its original form or as butter, cream, ice cream, and cheese?

Dozens of varieties of hard and soft cheeses are available to serve with fruit, in main dishes, and salads, in desserts and sauces, and as sandwich fillings. Ice cream and milk sherbet provide cool and refreshing treats for many meals. Butter, sweet and sour cream add flavor and interest to many dishes.

Here are a few recipes for your collection of ways to use dairy products in your kitchen.

ALMOND BAVARIAN CREAM

- 1 tablespoon gelatine
- 1⅔ cup milk
- 2 egg yolks
- ½ cup sugar
- ¼ teaspoon salt
- ½ teaspoon almond flavoring
- 2 egg whites, beaten stiff
- ½ cup heavy cream, whipped
- ⅓ cup finely chopped, toasted almonds

Soften gelatine in ⅔ cup of the cold milk. Combine egg yolks, sugar, salt, and remaining milk and cook over low heat with constant stirring until slightly thickened. Add softened gelatine and stir until dissolved. Add flavoring and cool until slightly thickened. Fold in the stiffly beaten egg whites, whipped cream, and almonds. Turn into one large or 6 individual molds which have been rinsed with cold water. Chill until firm. Unmold and serve with fresh strawberries or other fresh or frozen fruit and whipped cream. Serves 6.

CHOCOLATE BREAD PUDDING

- 2 cups day-old ¼ to ½ inch bread cubes
- 2 squares chocolate
- 3 cups milk
- 2 tablespoons butter
- 3 eggs
- ¾ cup sugar
- ¼ teaspoon salt
- 1 tablespoon vanilla

Place bread cubes in a buttered 1½ to 2 quart baking dish. Scald milk with the chocolate and beat with egg beater to blend. Add butter. Combine eggs, sugar, salt, and vanilla and beat with a fork just to blend. Pour hot chocolate milk mixture over egg mixture and strain over bread cubes in dish. Set baking dish in pan of hot water, and bake in a moderate oven (350°) uncovered about 40-50 minutes, or until a small knife inserted in center of pudding comes out clean. Serve warm or cold and with whipped cream, if desired. Serves 6 to 8.

COTTAGE CHEESE SALAD MOLD

- 1 tablespoon gelatine
- 1 cup milk
- ⅔ cup French dressing
- 1½ cups cottage cheese
- 2 tablespoons minced onion
- ½ cup chopped celery
- ¼ cup green pepper strips
- ¼ cup thin radish slices
- ¼ cup shredded raw carrot
- ¼ cup thinly sliced cucumber

Soften gelatine in ¼ cup cold milk. Heat remaining milk to lukewarm. Add softened gelatine to warm milk and stir until melted over low heat. Stir in French dressing and cottage cheese. Cool mixture until it begins to thicken. Fold in the combined vegetables and pour into a 1-quart ring mold. Chill. Unmold on crisp salad greens and garnish salad plate with relishes. Serve with any desired salad dressing. Makes 6 to 8 servings.

EASY SHAKES AND FLOATS

- 2 tablespoons any desired color and flavor gelatine dessert
- 2 tablespoons very hot water
- 1 cup milk
- 1 scoop desired color and flavor ice cream

Combine flavored gelatine and hot water in a shaker or tightly covered container and shake well. Pour into a tall glass and add scoop of ice cream. If desired, an additional scoop of ice cream may be shaken or beaten with the flavored milk. Makes 1 serving.

BERRY ICE CREAM FLOAT

- ¼ cup crushed strawberries or raspberries
- 1 to 2 teaspoons sugar
- Milk
- 1 scoop strawberry, raspberry, or vanilla ice cream

Combine crushed berries and sugar and place in tall glass. Fill glass ⅔ full with cold milk. Add scoop of ice cream and fill to top of glass with milk. Garnish with whole berry and sprig of mint. Thawed frozen berries may be used; omit the sugar.

CREAMY COLE SLAW DRESSING

- 1 cup dairy sour cream
- 2 tablespoons vinegar
- 1 tablespoon lemon juice
- 2 tablespoons sugar
- 1 teaspoon salt
- Pepper, paprika, and mustard to taste
- ½ teaspoon celery seed
- 1 pimiento, cut in slivers

Add seasoning to cream and blend. Stir in celery seed and pimiento and chill. Omit celery seed and pimiento if a plain cream dressing is desired. Makes about 1¼ cups. May also be

(Continued on Page 26)



VISITING
with
Home Editor Augusta Chapman

WHEN I WISHED you "Merry Christmas" last December, I had no idea it would be six months before we got together again. Now, here it is June—the time for weddings, graduations, gardening, picnics, and all the other activities of early summer.

This is my favorite season of the year and the time I'm most thankful that I live in the country. To me, there's nothing that quite compares with the sense of peace and satisfaction that comes on a June evening—the warm, fragrant air, the grass and leaves still new enough to look bright and clean, the sleepy croak of a bullfrog from the pond across the road, and the whirring of tree toads. I find welling up within me a deep thankfulness to God for my Country, my family, and all the good things of life He has given us to enjoy.

Our younger son will graduate from high school this month, and we're relaxing somewhat now, for the decision as to where he'll go to school this fall has finally been made. During March and April the tension increased with each week, as the May 1 deadline drew nearer, and one school had to be selected.

We visited a small engineering school in northern New York State, and made a hurried weekend trip to Chicago to see Illinois Institute of Technology where Jim had been awarded a four-year full tuition scholarship by the Borg Warner Corporation. But having lived so close to Cornell all his life, the other campuses and schools were sort of measured by what meant "college" to him, and somehow didn't quite fill the bill.

So Jim will be studying chemical engineering at Cornell in September, and "Mom" has mixed feelings about his decision. Certainly, we want him to go to school where he will be happiest (and we'll be glad to have him home a few years longer), but coming from an old line of thrifty farm families, as I do, once in a while I think wistfully of that $4,800 he turned down!

Many of you have had a similar experience in the past, and many more will have it in the future. What college to attend is really an important decision to make, for regardless of where a young person goes, much time and money will be invested before he or she gets that coveted diploma.

Rayon Work Pants

Can you imagine buying Dacron and rayon work pants for your husband to wear on the farm? As impractical as this may sound, and even though they cost more, these pants may be a better buy than the traditional all-cotton ones.

In tests conducted recently by Iowa State University, work pants made of a fabric blend of Dacron polyester and rayon wore longer than all the others tested—10-hour days for approximately 11 months. Cotton pants reinforced with nylon wore from 5 to 8 months, and all-cotton pants lasted only about 3 months.

On the basis of this study, it would seem that the wash and wear slacks, so popular with young folks for school and casual wear, should also show greater durability when containing one of these man-made fibers. We're trying them out at our house to see if they do wear enough longer to make them worth the higher price.

Freezer Booklets

The other day I received two very helpful booklets from Dolores L. Elliott, Director of Consumer Education for The Dow Chemical Company. They are entitled "Use Your Freezer for Mealtime Magic" and "Use Your Freezer Everyday." One is a basic freezer booklet and will, I believe, help you to get the most from your freezer; the other gives recipes for preparing foods which will freeze well, also suggested menus for using them when unexpected guests arrive or a family meal must be prepared quickly.

You may have these booklets (mention the titles) free of charge by writing:

The Dow Chemical Company
Specialty Products Division
First and Water Streets
Bay City, Michigan

Have a nice summer, and I hope each of you will be able to get away for at least a few days' vacation. You'll find it worth all the effort and planning it takes -- and home will look even better when you return.

an extra special cruise with an extra special group



AMERICAN AGRICULTURIST REUNION TOUR

to Bermuda and Nassau, October 17-27, 1962

under the direction of Travel Service Bureau





Here's a special trip that American Agriculturist has planned for you—an opportunity to combine a reunion of all former travelers with a delightful, luxury cruise to Bermuda and Nassau.

All former tour members are invited. Special meetings will be held on board ship to provide "get-togethers" for each tour group. What a wonderful way to renew friendships! (Of course, this tour is open to anyone—if you have not traveled on an AA-TSB tour, this would be a wonderful introduction to carefree travel with a friendly group of American Agriculturist folks.)

And Travel Service Bureau has arranged for other rural groups like ours from the Mid-West to share the cruise ship; this will make the ship virtually "ours" as there will exist a community of interests among all on board.

Your cruise ship, the QUEEN OF BERMUDA, recently underwent a $4½ million refitting and is now the ultimate in travel to Bermuda and Nassau. Her veteran crew makes her truly one of the "happiest ships" afloat. And your last night aboard this floating palace will be a special gala evening—a final night you'll long remember.

TSB TOURS

TRAVEL ANYWHERE WITH TSB

BERMUDA, a magic island, a pleasure spot seldom forsaken by the sun, a pastel island of coral and jade, is your first stop. Average daytime temperatures here in October are 79° (nights average 10° cooler). You'll visit Leamington and Crystal Caves, the Aquarium, Perfume Factory and Devil's Hole (a natural coral cave filled with fish, eels, lobsters, sharks and turtles). You'll also see the old and quaint town of St. George. Leisure time can be spent on land or on board ship.

NASSAU, the famous, colorful port of the Bahamas, has its own special charm. Colorful Bay Street is noted in the Caribbean for its wonderful shops where you'll find crystal, woolens, silver, and cashmere from England; perfumes and doeskin gloves from France; and many, many more bargains. You'll see ancient Forts Fincastle, Montague and Charlotte, the Queen's Staircase. Government House, a unique native market, the Ardastra Gardens and the famous Flamingo Parade. And, again, you may spend your leisure time bargain hunting, sightseeing, or enjoying the life of luxury aboard ship.

Here is your chance to treat yourself to a really carefree, worry-free cruise . . . to renew old acquaintances . . . to relive experiences and the fun of other trips as well. No other tour offers you the personal care, the all-inclusive arrangements and the friendly group of travel companions that you'll long remember on this American Agriculturist REUNION TOUR to Bermuda and Nassau.

For complete information, mail coupon today.

American Agriculturist Tours
Department T-5
Travel Service Bureau
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Needham 92, Massachusetts

FREE TRAVEL BOOKLET FORM

Please rush me free booklet and full information on the all-expense American Agriculturist-TSB REUNION TOUR, Oct. 17-27, 1962.

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PLASTIC FREEZER CONTAINERS

Now home freezer owners can buy plastic freezer containers in wholesale quantities and price brackets through the mail. Reusable containers are soft and pliable. New space-saving square shape. Flexible, non-leak lids included. Pints are priced at $9.75; quarts at $14.75 per hundred, postpaid. Safe delivery guaranteed. Sample pint, 25c Write: OXBORO HEATH CO., Box 7097, Dept. NC, Highland Station, Minneapolis 11, Minn.

!! WORK CLOTHES - COVERALLS !!

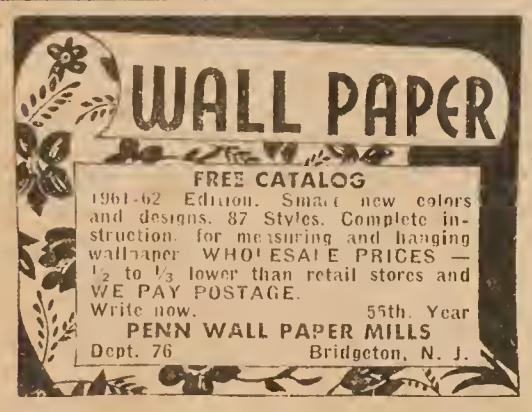
Save 75% of Original Cost

Coveralls	$1.89
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Pants only $1.00 Shirts only	.50
Matching Gabardine-like pants and shirts	2.00
Gabardine-like pants only	1.25
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Heavy twill pants (30-42)	1.50
Lined twill jackets (36-42)	2.89



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Were sold in 1961 by members of Sunday Schools Ladies Aids, Young People's Groups, etc. They enable you to earn money for your treasury, and make friends for your organization. Sample FREE to Official.

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Garden Talk

By NENETZIN R. WHITE

Wet Spot

I have always had great disappointment in a certain "wet spot" in my patio. I have planted all kinds of flower seeds and also plants which I have bought in the nursery already started and I have never been able to grow anything in that one spot with the exception of tulips, and even they are dropping off one by one every year.

Can you suggest a perennial plant with color that does not grow too tall? I would like something that grows as high as petunias or salvia. Every summer I have planted annuals, but I find this too much for me to do and I would like to cut down on some of my gardening. I would like a plant that has and bears flowers all summer long into late summer or early fall.—*Mrs. C.J.C., N.Y.*

My suggestion would be to dig up this bed, put gravel under it and establish a dry planting pocket.

No perennials will blossom all summer, but several will tolerate wet soil. For example, ferns, sensitive; Royal or Cinnamon Monarda didyma (beebalm); Myosotis palustris (forget-me-not); Mertensia (Virginia bluebells), Pulmonaria (lungwort). These are roughly in your height requirement.

There are a few annuals that will tolerate wet spots; Mimulus (monkey flower); Nemophila (love grove); Ionopsidium (diamond flower). For a change from dwarf marigolds, try dwarf nasturtiums, pansies, dwarf snapdragons, or annual phlox.

HERBS

Where can I buy herbs? Dried, for medicinal use—sea wrack, abscess root, and several others. I have the botanical and common names of the herbs I need. Years ago I bought from the Servill Company in Philadelphia, but they went out of business several years ago. —*Mrs. F.L., N.Y.*

I have found these two herb sources for you to try:

S. B. Penick
100 Church Street
New York, N. Y.

Herb Farm Shop
1 East 57th Street
New York 22, N. Y.

LONELY PEDESTRIAN

By Russell Pettis Askue

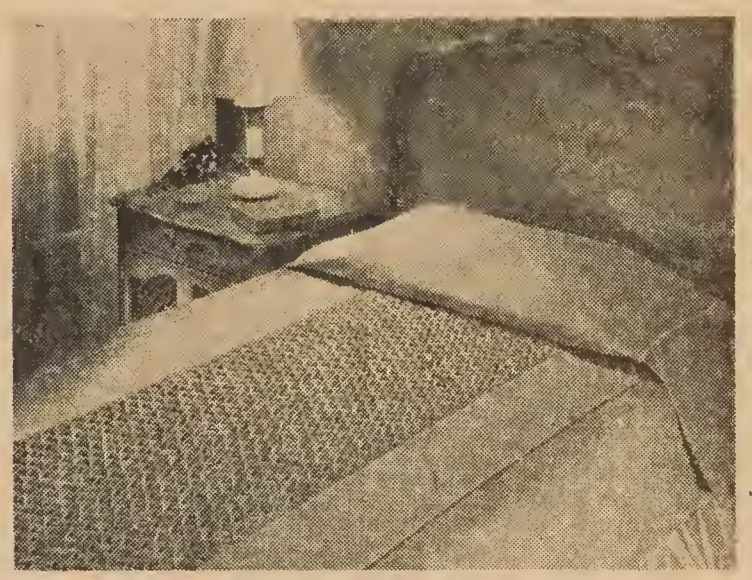
I go for a walk, and the people I meet,
Although perfect strangers, smile warmly and greet
Me because we pedestrians now are as few
As the old pioneers when our country was new.

At first a dog barks when he spies me afar—
He knows that I ought to pass by in a car—
And then he walks with me, tail wagging elate,
So glad of my company, clear to my gate.

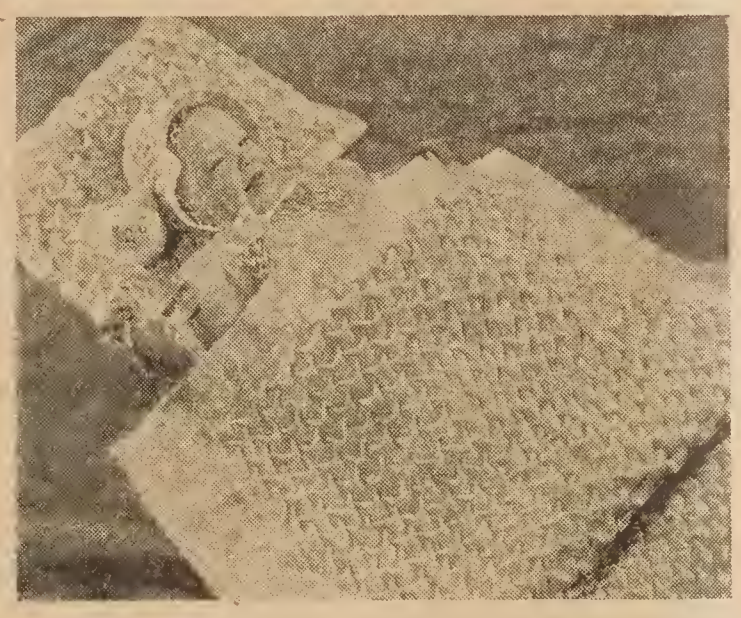
Small children, pre-school, also can't understand
A grown-up, and car-less, abroad in the land.
Boys shoot me with six-guns, and girls with a smile,
And strangers, dogs, children make walking worthwhile.

SOMETHING DIFFERENT!

The smocked pillows featured in our May issue have proven so popular that we're bringing you patterns for two more smocked items this month. Make them for yourself or for gifts that will really thrill the receiver!



7135. A note of luxury for your bedroom. Choose colorful corduroy velveteen, satin, or a polished cotton. Pattern includes transfers, coverlet and dust ruffle directions for single, double, and king-size beds.



693. If you want the newest and prettiest for baby, make this smocked set — pillow, coverlet, bonnet, and jacket. Use cotton, pique, corduroy, or the new nylon velvet. Pattern includes transfers and directions for 4-piece set.

PATTERNS ARE TWENTY-FIVE CENTS EACH. Add 5c each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, 257, Needlework Service, P. O. Box 162, Old Chelsea Station, New York 11, N. Y. Send 25c for Needlework Catalog.

Food Specials

(Continued from Page 24)

used on cucumbers, and on fish and sea food salads.

BAKED CHEESE FONDUE

1 cup milk, scalded
1 cup light cream
2 eggs, beaten
2 cups grated Cheddar cheese
½ teaspoon dry mustard
½ teaspoon salt
2 cups bread crumbs
2 tablespoons butter

Combine milk and cream and stir slowly into the beaten eggs. Add cheese, mustard, and salt and stir until cheese is melted. Stir in the bread crumbs. Pour into a buttered quart casserole, set in a pan of hot water. Dot with butter. Bake in a moderate oven (350°) 40 to 50 minutes. Serves 6.

CHEESE FONDUE—SWISS STYLE

8 ounces sharp Cheddar or process American cheese, grated
2 tablespoons butter
2 tablespoons flour
1 cup milk
¼ teaspoon salt
⅛ teaspoon pepper
2 egg yolks slightly beaten
1 loaf French bread, pulled apart or cut in bite size pieces

Melt butter, stir in flour and blend well. Stir in milk and seasonings gradually. Cook mixture with constant stirring over low heat until thickened. Blend a small amout of the sauce into the yolks, then add to the remainder of the sauce, and cook a minute or two over low heat. Add the shredded cheese and stir until melted. Do not bring to boiling. To serve, pour the fondue mixture into a warm deep, round bowl, place French bread pieces in napkin lined basket. Each person then uses a long-tined fork (or long toothpick) to spear a piece of bread and dip it into the rich hot cheese sauce.

Note: The above recipe may be made entirely in a glass double boiler or chafing dish and served right from either for an informal supper. A tossed green salad, and fruit or a simple fruit dessert and coffee complete the meal.

Swiss cheese may be used in place of the Cheddar or process American. It will be more stringy when heated.

VEAL AND NOODLE SUPREME

2 pounds boneless veal, cubed
¼ cup flour
1 teaspoon salt
¼ teaspoon pepper
¼ cup butter
½ cup chopped onion
1 cup water
1 6 ounce package medium noodles
1 cup sliced mushrooms
1 teaspoon celery seed
1 cup dairy sour cream
¼ cup buttered crumbs

Combine flour, salt, and pepper in a paper bag and shake veal cubes in bag until coated with flour. Brown cubes in the butter. Add the onion and cook until transparent. Add water and simmer, covered, about 1 to 1½ hours or until meat is tender. Cook noodles in boiling salted water (1 tablespoon salt to 3 quarts water) until tender, about 10 minutes, and drain. Add meat, mushrooms, celery seed, and sour cream. Season with salt if needed. Turn into a buttered 1½ quart casserole and top with buttered crumbs. Bake in a moderate oven (350°) about 25 minutes or until heated and lightly browned on top. Serves 6.

Summer Favorites

4679. Two skirts, two jacket versions add up to four different outfits—all in ONE Printed Pattern. Choose slubbed cotton, linen, shantung. Half Sizes 12½, 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.





4558. The exotic side-slit tunic. Sew in border print, denim, brilliant solid cotton. Printed Pattern in Misses' Sizes 10, 12, 14, 16, 18. 35 cents.

4774. Dress, sleek, sleeveless; jacket scalloped. Choose cotton, linen, rayon. Printed Pattern in Misses' Sizes 10, 12, 14. 16, 18. 35 cents.



4687. Cool comfort for the half-size figure. Cotton for this, of course. Printed Pattern in Sizes 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

4512. Whirl through summer in this pleated charmer. Perfect for an easy-care cotton blend. Printed Pattern in Misses' Sizes 12, 14, 16, 18, 20. 35 cents.

4674. The button-on capelet transforms this sun style into a town and travel costume. Sew it in cotton, shantung, linen. Printed Pattern in Half Sizes 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

Patterns are THIRTY-FIVE CENTS EACH. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Department, Box 42, Old Chelsea Station, New York 11, New York. Please write name, address, pattern size and numbers clearly. Send 35 cents for our fashion Catalog in full color. See more than 100 styles to sew for all occasions. Most are adaptable to any season.

With AMERICAN AGRICULTURIST Advertisers





A self-propelled ensilage loader is made by the WESTHOLT MANUFACTURING CO., Wichita, Kansas. It combines one man operation and complete maneuverability in the trench with better feed preparation, and eliminates tying up that second or third tractor.



The rolling cultivator manufactured by the LILLISTON IMPLEMENT COMPANY, Albany, Georgia, is a high speed tool capable of operating three times faster than other cultivators. It cultivates all crops, whether they are planted on the level, on a high bed or in a furrow. Each row is worked by three independently floating gangs —two of them completely cultivate the bed, the third rolls over the crop and can be adjusted to agitate just enough to break the crust and remove the weeds with no harm to tender crops.

INTERNATIONAL HARVESTER COMPANY, 180 N. Michigan Ave., Chicago 1, Illinois, has added 4 new tractors to their equipment. The 35 pto horsepower tractors are designated the 404 series; the 45 pto tractors will be the 504 series. Power steering for the models is 100 percent hydraulic and called "hydrostatic" steering. Power is supplied by an internal hydraulic pump when the engine is running but the operator can steer the tractor manually when the engine has stopped.

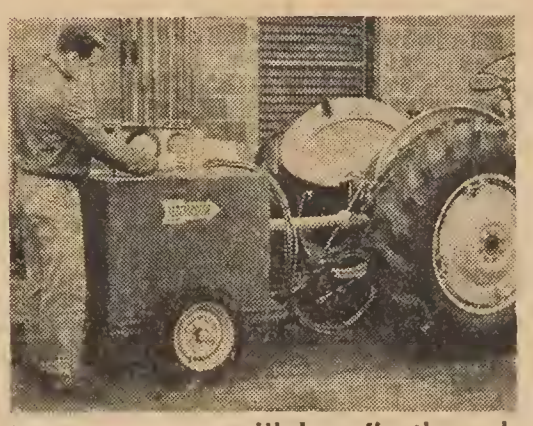
Another new piece of equipment is the two-row harvesting unit on the No. 50 Field Harvester. It can chop a record 65 tons per hour in corn silage and can be easily interchanged with a 7½-foot cutter bar and double-windrow pickup units for big capacity performance in any forage crop.

FARMHAND has a new self-propelled, hydraulic loader designed to handle hundreds of jobs in quarters too tight for conventional loaders. The F-2 has a lift capacity of 600 lbs., a breakaway capacity of 1,000 lbs. and a lift height of eight feet. Fingertip levers control forward and reverse, speed and turning. Hydraulic lifting and tilting are controlled by foot pedals. The roller chain and sprocket drive are shielded for the operator's protection.

PENNSALT CHEMICALS CORPORATION, 3 Penn Center, Philadelphia 2, Pa., has two new developments. One is a handy one-gallon plastic container with handles for Pennclean and Bankal (effective cleansers and milkstone removers) for easier product handling. The other is an Aquathol bulletin which can be obtained by writing the company. It explains how to control aquatic weeds and gives directions for effective control.

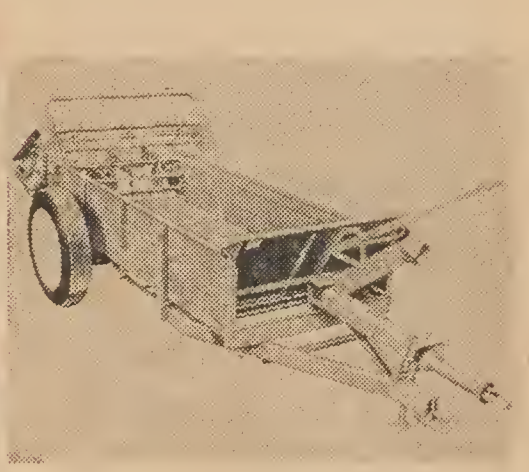
AMERICAN BREEDERS SERVICE, Chicago, Illinois, has a new trademark. It is deep blue and red and has two versions—when used alone, it contains the company name; when it appears with company identification, it contains the slogan "Every Sire Proved Great." This trademark fits both the dairy and beef fields and any new fields the A.I. industry may develop.

Two hundred pages of the latest and most useful information about dairy farming can be found in the "Blue Seal Dairy Manual." This Manual may be obtained free of charge from local BLUE SEAL representatives or by writing to The H. K. Webster Company, Lawrence, Massachusetts.



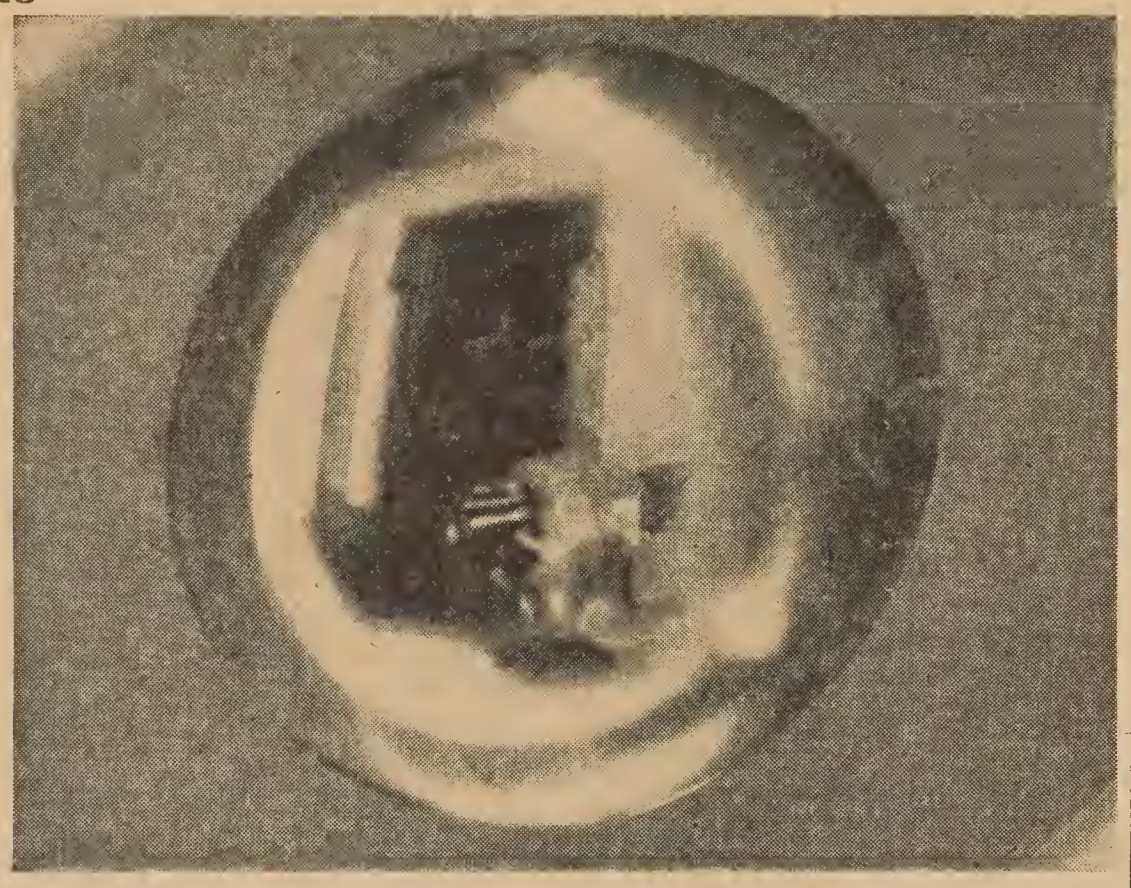
Tractor owners will benefit through a campaign by the FORD Tractor and Implement Division to place Testmaster dynamometers in the service shops of more than 2,500 Ford tractor dealers.

With the dynamometer, servicemen need no longer depend upon their experienced judgment when adjusting engine functions and components. From it, they can read the power increasing or decreasing effects of different carburetor settings, spark plug and point spacings and timing and rate changes. It will help servicemen complete engine tune-ups or overhauls to obtain perfct engine performance, maximum power output and efficient low-cost operation.



The 140-bushel PTO-driven manure spreader, Model 140, available from ALLIS - CHALMERS MANUFACTURING CO., Milwaukee, Wisconsin, provides positive, uniform spreading control over varying ground conditions. It has five rates of feed; complete unloading is assured by the independent control of apron and beater.

The spreader rides on a 2-position axle which provides adjustment for ground clearance. Preservative treated select-grade, tongue and grooved lumber is used throughout the box; acid resistant steel is used for metal coming into contact with manure and on points of wear.



Don't Let Summer Moisture Harm Your Furnace

A few drops of summer moisture on the business end of an oil burner—that's all it takes to start rust and corrosion eating away at costly burner parts. If your burner hasn't been cleaned this spring, normal carbon deposits are collecting summer moisture *right now.*

Don't let moisture ruin your furnace. Phone your nearby GLF Petroleum service today and ask for a thorough cleaning. Your furnace will be completely cleaned, adjusted and tested by trained servicemen, and you'll be all set for another season. Why not take care of this right now . . . and avoid the fall rush in the bargain?

GLF Quality

Cooperative GLF Exchange, Inc.

GLF Fuel Oil Service

LEE'S HILL Famous



Irish DEXTER FARM

COOPERSTOWN, N.Y.

IRISH DEXTER CATTLE

Compact cattle, gentle, hardy, disease resistant, economical. Dual purpose, milk or beef. Perfect for small acreage. Affiliated with American Dexter Cattle Association. Write for particulars.

LEE'S HILL DEXTER FARM
Box 26, Cooperstown, New York

Here's The Way To Curb A Rupture

Successful Truss That Anyone Can Use on Any Reducible Rupture, Large or Small

If you must wear a Truss for Rupture, don't miss this. A Post Card, with name and address, will get you FREE, and without obligation, the complete, modernized Collings Plan of Reducible Rupture Control. Now in daily use by thousands who say they never dreamed possible such secure, dependable and comfortable rupture protection. Safely blocks rupture opening, prevents escape, without need of harsh, gouging pad pressure. Regardless of how long ruptured, size, occupation, or trusses you have worn. TRY THIS, and send your Post Card today to Capt. W. A. Collings, Inc., Dept. 717X, 5 Bond St. Adams, N. Y.

WANT TO **STOP SMOKING?**

NO-TO-BAC

Try NO-TO-BAC lozenges and see how their aromatic flavor helps stop the craving for tobacco. Rush $1 for 7 days' supply. (For heavy smokers — 16 days' supply $2). Money refunded if not satisfied. **NO-TO-BAC, Dept. AA, Hewlett, N.Y.**

Heal TEATS! Soften UDDERS!

You will like this modern, more effective medication for Sore Teats, Tender Udders. More soothing, more softening, more penetrating to relieve soreness . . . reduce congestion. *$1 at drug and farm stores, or write*

H. W. NAYLOR CO., MORRIS 9, N. Y.

Dr. Naylor's UDDER BALM

When writing to advertisers be sure to mention *AMERICAN AGRICULTURIST*.

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in *suppository* or *ointment form* under the name *Preparation H®*. At all drug counters.



Sandy beaches, white-roofed houses and leisurely living make Bermuda one of the most delightful spots in the Caribbean.

The Chance of a Lifetime!

Have you gone with us on an AMERICAN AGRICULTURIST Tour to California or Alaska? Or Europe maybe? Or on a Caribbean Cruise, or to Hawaii? Well, if you have been on one of these tours, or on any of our other trips not mentioned, we know you'll be just as excited to read about the "Reunion Tour" we've planned for this fall as we are to announce it!

For years we've wanted to arrange a cruise that would be both delightful and inexpensive, and to feature it as a "Reunion" for all our former tour members. This year we've done exactly that, and we hope you'll start planning right now to go to Bermuda and Nassau with us in October. Of course, this cruise is open for **anyone** who wants to come along, so if you've never traveled with us before, here is a good chance to find out what a wonderful experience it is to take a trip the carefree way — with a friendly AMERICAN AGRICULTURIST tour party.

On October 17 we'll gather in New York City, from all parts of the Northeast and Midwest, for a get-together banquet at the Sheraton Atlantic Hotel. Here, we will meet old friends and have an opportunity to make many new ones.

The following day will be reserved for sightseeing in New York and will include the Empire State Building, the United Nations, Riverside Church, Cathedral of St. John the Divine, St. Patrick's, Wall Street, Chinatown, Greenwich Village, and a boat ride to the Statue of Liberty.

If anyone wishes to skip the sightseeing and shop instead, full refund will be made for this part of the tour. There'll also be a chance for last-minute shopping on Friday morning, October 19, before we board our cruise liner, the Queen of Bermuda, in the early afternoon.

You'll be delighted with this sparkling ship, for it is the ultimate in travel comfort. Air conditioned throughout and boasting one of the largest swimming pools afloat, it has been completely refitted and redecorated at a cost of four and one-half million dollars. You'll find a full program of events with activities that will appeal to each and every person, also special get-together meetings of the various tour groups. Then, the open deck will always invite you to just relax and enjoy the sunshine and the sea breezes.

Land is sighted on Sunday morning, October 21, and soon we'll find ourselves ashore on the magic island of Bermuda. We'll tour the entire island and visit the quaint town of St. George, the Crystal Caves and Leamington, the Aquarium, Perfume Factory, and Devil's Hole, a coral cave filled with monsters of the deep.

Another day and a half of cruising through turquoise waters will bring us to the next highlight of our tour, the colorful port of Nassau in the Bahamas. Nassau has a special charm all its own! Even as we leave the ship, you'll notice the air has a different softness, and the quaint fringed-topped surreys jogging along the narrow, winding streets make you forget that the year is 1962.

Our sightseeing cars will take us to ancient forts — Fincastle, Montague, and Charlotte, to the Queen's Staircase, Government House, and the unique native market. We'll also visit Ardastra Gardens and see the famous Flamingo Parade.

In the afternoon we'll have time to go shopping on Bay Street, which is noted throughout the Caribbean area for its wonderful stores. Here we'll find crystal, woolens, silver, and cashmere from England; perfumes and doeskin gloves from France, and all at bargain prices.

We board our ship at dinnertime and reluctantly begin our trip homeward. Two more perfect days will follow, however, as we continue living in luxury on our floating palace. The last night on board will be an especially gala evening, and one we'll long remember.

Arriving back in New York the morning of October 27, we'll board our "Reunion Special" and be home that night, with memories of a vacation that will give us something to think and dream about for months to come.

So plan to pack your bags and come along with us to Bermuda and Nassau. Every detail of this perfect trip is planned by our very competent travel agents, the Travel Service Bureau of Needham, Massachusetts. You will have no travel worries at all, for our experienced tour escort takes care of everything.

To get a free copy of the printed itinerary with complete information as to what the tour will cost (and you'll be amazed at how reasonable it is), just fill out the coupon below, and mail it to us today.

Mr. E. R. Eastman, President
American Agriculturist
Box 367-R
Ithaca, New York

Please send me without obligation on my part a free copy of your Reunion Cruise itinerary, October 17-27, 1962.

Name.....

Address.....

Please print name and address

Hobo In Our Hearts



By EILEEN M. HASSE*

WE HAVE a healthy mixture of German, French and Polish in our blood—but we have Hobo in our hearts. Normally, we cook on a stove, sleep in beds, and live organized lives. But once a year my husband upsets the applecart by saying, "Better send for this."

"This" is travel information available by clipping a coupon. "This" is the beginning of our yearly rebellion against the organized way of life.

However, I feel that it takes some planning to achieve a perfect hobo holiday. The minute "this" travel information arrives I begin making a list of the necessary things we will need. By necessary, I mean just that. We go sans ice chest, camp stove, sans all the beautiful camp equipment in Sears Roebuck or sporting goods stores. Our necessities consist of a first-aid kit, well equipped; bedding, lots of it; a century-old chicken fryer; and a few buckets.

You see, we must watch our weight. Six people whose total weight is well over 700 pounds, plus a 9 x 12 tent, clothes for 10 days for six campers, and a tuft of pipe cleaners, can set the aged Plymouth steaming in the mountains. I mention pipe cleaners because, though less weighty, they are most vital. Armed with pipe cleaners we are ready for any emergency, from helping a hairdo to wiring the tailpipe back in the Plymouth.

No Food

One thing we don't pack is food. Oh, we take a thermos jug of water, an empty insulated picnic bag, and a kitchen box (salt, sugar, cutlery and disposable dishes). And we take plastic bags for storing the food we will buy on the road. Several packs of chewing gum and hard candies are necessary to stave off hunger at times.

We like staying away from civilization—but not so far away that we can't buy groceries for a bountiful supper, an adequate breakfast, and enough to tide us over lunchtime on the road. We survive on frozen dinners and semi-prepared foods from the supermarkets. What a delight to sample the variety of things that are foreign to our own neighborhood store! In Colorado we discovered wonderful limas canned with lots of ham. "Colorado Beans" were a "natural" to heat up over canned heat as we peered over a mountain ledge or watched a rushing stream at noon.

One night our appetites carried us away. Each of us chose exactly what he wanted. Jim ate two spaghetti dinners; Bill had ham and yams; Laverne went festive with turkey; while Mary and I settled for fried chicken. But Paul turned his back on TV dinners. Having a passion for hamburger, and being in the heart of the beef country, he bought two pounds of ground beef and some trimmings. It was little wonder that as our campfire died down there was no capacity for the banana cream pie Laverne had bought.

The next morning the children were amazed to find the breakfast table set with generous pieces of pie.

"Pie? For breakfast?" Bill asked.

"Yes, sir! And you have to eat it first," came the unusual parental command.

"Boy, this is the life!" Bill shouted.

Yes, there are some problems when refrigeration is lacking! Usually there's ice in the insulated bag to keep anything that isn't too crushable.

Anything is possible when you're a hobo. We have baked frozen turkey pies in our chicken fryer over a bucket of charcoal. We used the same pan to grill our rocky mountain trout and bake our pancakes. Our cutthroat salmon from Yellowstone Lake gave us two delightful meals around a roaring fireplace in West Thumb. Even hot bologna over an open fire is a feast after a swim in the chill lakes of northern Wisconsin.

Never have we had a definite plan or a reservation! On most of our journeys we have found adequate campgrounds. Some were so elegant as to supply hot showers; most of them were generous with wood and water. However, there were a few places where the only water was that rushing by our tent, and the sanitary facilities were found under a bridge behind forbidding cactus.

Only once in our hobo journeys have we been destitute for a place to stay. Finally, we timidly approached the keeper of a city park. To our surprise he gave us permission to pitch our tent, and free use of the gas burner inside the picnic shelter.

Wonderful People

One of the good things about a hobo trip is that it restores your faith in people. Fellow wanderers are such wonderful folks! Occasionally we see a sympathetic eye taking inventory of our worldly goods as we pull into another camp grounds. But a real hobo is never green-eyed. Usually, we have our supper sizzling while neighboring campers are pumping up the pressure on their stoves.

The wonderful thing about traveling "light" is that we can pull up stakes and be on our way while the aristocrats of the road are loading the ice chest. Besides, there is no reason to bring everything from home. We have found that the American Way is to keep everything available to the public at all times—so we have never been uncomfortable for long. It's always just a stone's throw to another station or store. Besides, it's thrilling to liken ourselves, just a little, to our forefathers forging ahead in covered wagons, with only mild discomforts, and loving the terrible suspense of whether or not our "rig" will make it.

We go strictly blue-jeans, and pack but one good outfit each for church or something special. Dinner Jacket Joints don't offer what we want. The ranger at the campfire meeting satisfies our hunger for entertainment. The mosquitoes dig into our gooseflesh, but we are warmed by the cheery fire and the wonderful tales of the forest rangers.

Sometimes we go far; Colorado Rockies, Mesa Verdi, Yellowstone, the Tetons, or the Black Hills. Sometimes we settle for a short trip to Lake Superior, St. Lawrence Seaway, Pattison State Park, or a spot on the Mississippi. Always we have been able to find competent help to keep our cattle.

But we are not alone! Most Americans have a healthy mixture of blood in their veins. Surely all farmers have a bit of hobo in their hearts. Were it not so, they would not be able to enjoy a hamburger eaten from a grimy hand while the combine empties into the truck. Every farmer thrills to the highest and the lowest places in our vast country. We think the sunset in the mountains is almost as magnificent as the one by our barn—but it's so much fun, just once a year, to become completely disorganized and see the far places!

*Loganville, Wisc.





MEDALLION HOME LIVE BETTER ELECTRICALLY

"WIRED HANDS" make sense in the farm home, too...

The time-and-labor saving convenience of low cost electricity makes just as much sense in the farm home as it does in the barn — where 8¢ worth of electricity saves $8 in farm wages! Maybe you don't pay your wife by the hour — but the hours she saves with modern electric home facilities can pay mighty big dividends for the whole family!

MAKE YOURS A "MEDALLION HOME" . . .

Let our Farm Service Representative show you how easily you can start to enjoy the comfort and convenience of all-electric living on the farm. Without obligation, he'll survey your home — and suggest easy steps which can put a "Medallion" on your door — and happy smiles on all the family faces!



SIGN OF BETTER FARMING...



NEW YORK STATE ELECTRIC & GAS CORPORATION



The main part of this house was built by Ephraim Eastman, my great-great-grandfather, in 1760, over two hundred years ago.

Americans For Three Hundred and Fifty Years

DID YOU EVER have the experience of being in a place you had never been before, and yet have the strange feeling that you really had been on that very spot?

A few years ago, Belle, Margaret, and I were riding with our friend, Roy Thompson, New England manager of American Agriculturist, around Deerfield in southern New Hampshire. It was a warm, lazy summer afternoon in July, and as we rode slowly along the old New Hampshire road we saw over the fence a man raking hay with a one-horse rake in an old meadow. Possessed by that strange feeling that I had been there before, I wondered why I felt that way—and then I thought I knew the reason. On that same meadow, my great-great-grandfather Ephraim Eastman and his sons had harvested hay nearly two hundred years ago. But then, of course, they had cut the hay with scythes and raked it with hand rakes.

With Roy's help we located the house where Great-great-grandpa Ephraim and Grandma Elizabeth Colbey Eastman had lived and raised a large family of nine children. All except one of the children grew up, and one of them was my Great-grandfather Jeremiah. That old Eastman homestead was built in 1760, fifteen years before the Revolution started, and while New Hampshire was still a British colony.

In reality, one's ancestry is not too significant or important. Yet I cannot help being interested that the Eastman family has had a part in American history since the beginning. Roger Eastman, my sixth great-grandfather, landed in Massachusetts Bay Colony in 1638, only eight years after the settlement of Boston by the Puritans in 1630. From that time to this, his descendants have served their country in every war and have been represented in nearly every trade, profession, or business. Above all, with very few exceptions they have been honorable citizens.

Roger Eastman and his wife, Mary Smith Eastman, had ten children. John, his oldest son and my direct ancestor, lived and died near his father's home in Salisbury. But John's son, Zachariah, moved to nearby Ipswich, Massachusetts. His oldest son, also named Zachariah, settled in Byfield, Massachusetts. His son, Ephraim, my great-great-grandfather, like many other branches of the Eastman family (all Roger's descendants) went to New Hampshire, settled first in Kingston, and later moved to Deerfield, purchased a large tract of land there, and built in 1760 the house which still stands.

The Eastman homestead is now occupied, and has been for four generations, by the Ambrose family. The present occupants are Mrs. Alice L. Ambrose, her son Byron and daughter Flora. Byron's great-grandfather bought the house from Benjamin Eastman, one of my great-uncles. The Ambroses are enthusiastic readers of American Agriculturist.

Apparently the farm was very much larger than it is now, for Ephraim and his wife had six sons and four daughters. One of the sons died young, but the rest of the boys were all willed farms from the original Ephraim Eastman tract; the girls being remembered with cash or other personal property.

One of Ephraim's sons, Jeremiah, was my great-grandfather. He grew up in that old Eastman home; married Sally Webster, a cousin of Daniel Webster; served in the War of 1812; and afterwards moved to New York State, where he settled near what is now Endicott.

Great-grandpa Jerry (Jeremiah) at one time owned hundreds of acres in Broome County, but lost it all in a series of lawsuits. His son George Washington Eastman was my grandfather. After his marriage, he moved to Cortland, where my father, Charles Robert Eastman, was born—and later to Berkshire, New York, where I first saw the light, and where my grandfather, father and other near relatives came to rest in Evergreen Cemetery.

So my own great-grandsons, Stephen Eastman Heller and Jeffery Malcolm Heller, are the twelfth generation, the great-great-great-great-great-great-great-great-great-grandsons of Roger Eastman, the first of the name in America.

Interesting Hobby

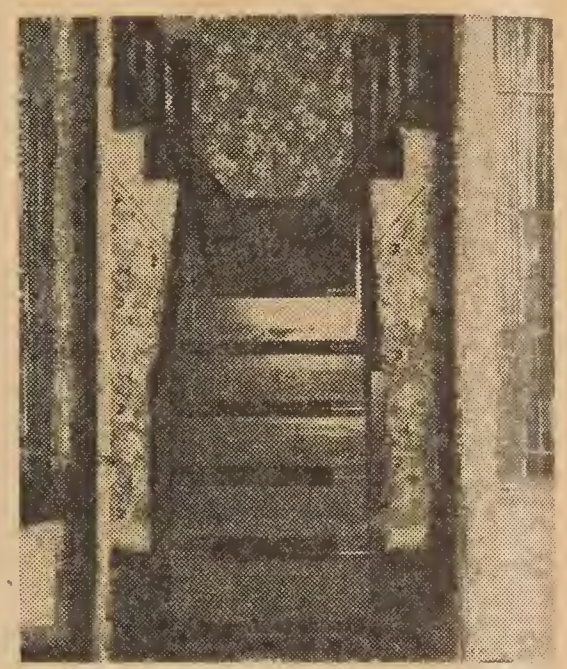
Now, there are probably quite a few who read this who have a similar family history that goes back to the beginning of America. But many people know nothing of their family history beyond their grandparents. You might find trying to trace your ancestry an interesting hobby. If you are interested, start in your own locality by talking with your county historian and any old friends of your family. Write to the New York City Library for the address of the American Genealogical Society and for any suggestions.

As Belle and I wandered from room to room in that ancient house, I thought of the generations of Eastmans who had lived and died there, of their small joys of everyday life, of gatherings around the Thanksgiving table, their meager Christmases, of their sorrow when those they loved "no longer cast a shadow in the sun." I thought how strange it is that the generations come and the generations go, but life — like Tennyson's brook — goes on forever.



In the cemeteries of New Hampshire rest many Eastmans, all direct descendants of Roger Eastman, who landed in Massachusetts Bay Colony in 1638.

Ebenezer Eastman was the first settler at Concord. At East Concord, as at Berkshire, New York, there is a school which bears the family name.



Staircase in the Eastman house at Deerfield, N. H. just as it was when my great-great-grandfather and grandmother and their children went up and down it in the long, long ago.

As I stood still to listen, I thought I heard the first cry of the newborn babe, and mayhap the last whisper of that same babe who had lived, had his being, his full three score years and ten, and been buried in the nearby Eastman family lot near Pleasant Pond.

As I stood in that old house, it didn't take much imagination to hear the pleasant conversation that went around the table when matters were going well on the farm and in the home, or to see the strain in their faces when some member of the family was sick, or the sadness when in nearly every generation one had gone forth from the family circle to take his part in almost every war in American history.

Even now as I look at the pictures on this page and others that Roy sent me, I can close my eyes and hear the footsteps of my people as they went about their tasks in that old Eastman homestead, and the homes in which they have lived since—as they walked with courage, faith, and hope toward their appointed destinies.

EASTMAN'S CHESTNUT

To all women:

If you turn this over and read it you will be sorry.

I knew you couldn't resist it! Now you must pay the penalty. For yielding to curiosity and temptation, you must put a dollar bill on the collection plate next Sunday at church **or** sit right down **now** and write a sympathetic letter to someone who needs encouragement — like a friend who is ill or in other trouble.



Ed Eastman's Page

Service Bureau

SNAP & RUN

"I hope you will warn your readers of a racket that was going on in Maine last month. A man made contacts, lining up appointments for photographing children in their homes. He insisted on payment at the time appointments were made. Many women paid him the full amount; some made only a down payment because they were suspicious.

"At the appointed times this man and a photographer took 12 pictures, proofs to be delivered in two weeks, and collected any balance due. No one received any pictures and in two weeks time they were long gone. I understand there is a warrant out for the man who is behind this operation. The only way they can be caught is for them to strike some area where people are forewarned and can catch them in the act. They may be operating right now in an area where one of your subscribers lives."

If you are approached with a similar proposition, notify your local law enforcement officials and they can check on the outfit's credentials.

COSTLY CHICKEN DINNER

We were happy to send our most recent $25 Service Bureau reward check to Mr. Richard G. Hendrickson, who operates a poultry farm with his father at Bridgehampton, N. Y.

Early on a March morning, Mr. Hendrickson saw that a chicken house had been broken into and two prize breeding cockerels were missing. He reported the theft to police and in less than 1½ hours Officers Charles Jones and Thomas Toole found the two men who had taken the birds. They were migrant workers and were found in their quarters at the labor camp, where the floor was covered with chicken feathers and there were the legs of the two cockerels with identification bands still attached. The men pleaded guilty to petty larceny and were sentenced to 30 days each in the county jail.

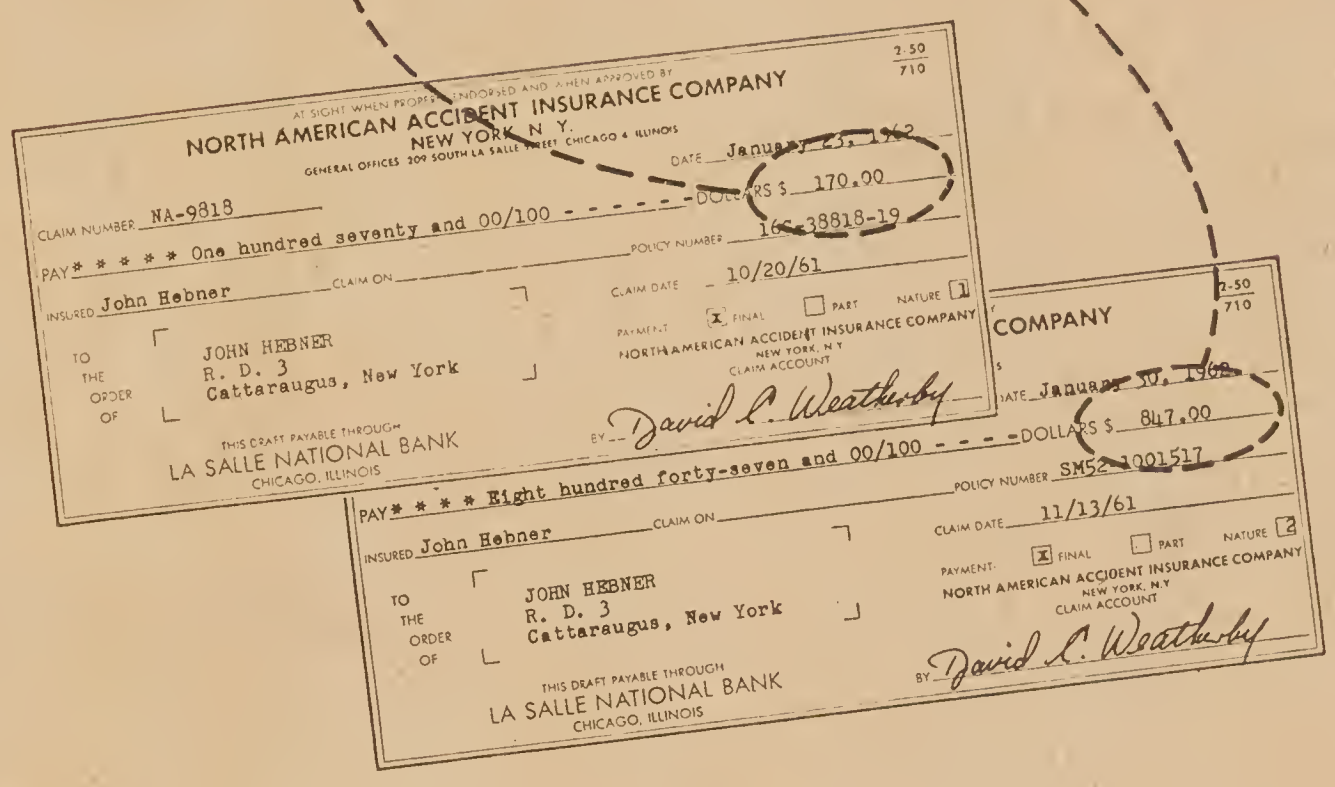
We would like to point out that rewards are offered only in case of poultry or livestock thefts, fraud or arson. Effective last fall, rewards for theft of property other than livestock or poultry were discontinued

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK	
Mr. Chester E. Harvey, Scotia (refund on trees)	$ 6.98
Miss Sandra Welch, Clyde (refund on cards)	26.05
Mrs. Helen Teall, Syracuse (refund on premium)	6.00
Pfc. Chas. Matteson, Oswego (Baggage loss settlement)	200.00
Mr. Jerry Taylor, Erin (payment on acc't.)	75.00
Mrs. John Makueh, Carthage (refund on sub.)	1.20
Mr. and Mrs. C. L. Burgett, Belfast (cleaner's damage)	6.00
Christman's Exchange, Fort Plain (payment on acc't.)	50.00
Mrs. Nettie Long, Callicoon (refund on premium)	2.00
Mr. Harry Pratt, Johnson City (refund on order)	15.65
Miss Kathryn Canevari, Millerton (refund on dress form)	5.00
PENNSYLVANIA	
Mrs. Aaron Smith, Mainesburg (Ins. settlement)	500.00
MAINE	
Mrs. Donald Grass, Robinson (payment for photos)	10.00
NEW HAMPSHIRE	
Mr. Herbert L. Kimball, Contoocook (refund on recorder)	59.95
MASSACHUSETTS	
Mrs. Donald Tower, Greenfield (refund of premium)	31.78

Accident and Sickness Protection Go Hand in Hand





The $170 and $847 checks were delivered to Mr. John Hebner of Cattaraugus, N. Y. by local agent Rod Guichard of Randolph, N. Y.

Mr. Hebner sent this letter—

"You can see from our picture, North American policies for accidents and sickness go hand in hand.

A few years ago I took the Accident policies from Rod Guichard. Last year I added the Sickness policy when it was first available. At that time I was in tip-top shape.

Then it happened. First I was hurt while baling hay. About the time I was back on my feet a serious illness sent me to the hospital requiring specialized medical treatments.

The two checks from North American took care of my hospital and home care bills for both accident and sickness.

I can honestly recommend North American Accident and Sickness policies as they fit your needs and budget."

John Hebner

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING ITHACA, N. Y.

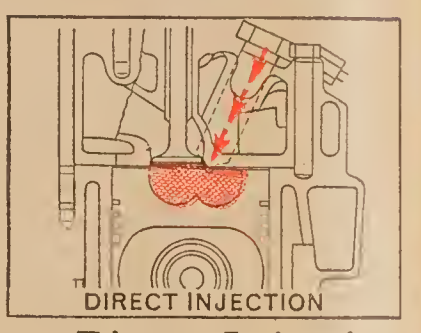
Keep Your Policies Renewed

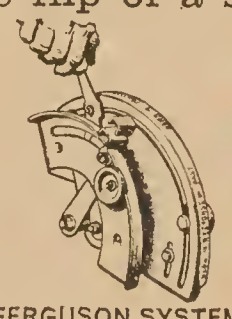
THE ALL-NEW MF Dieselmatic

...CLOSEST THING TO PUSH-BUTTON POWER!



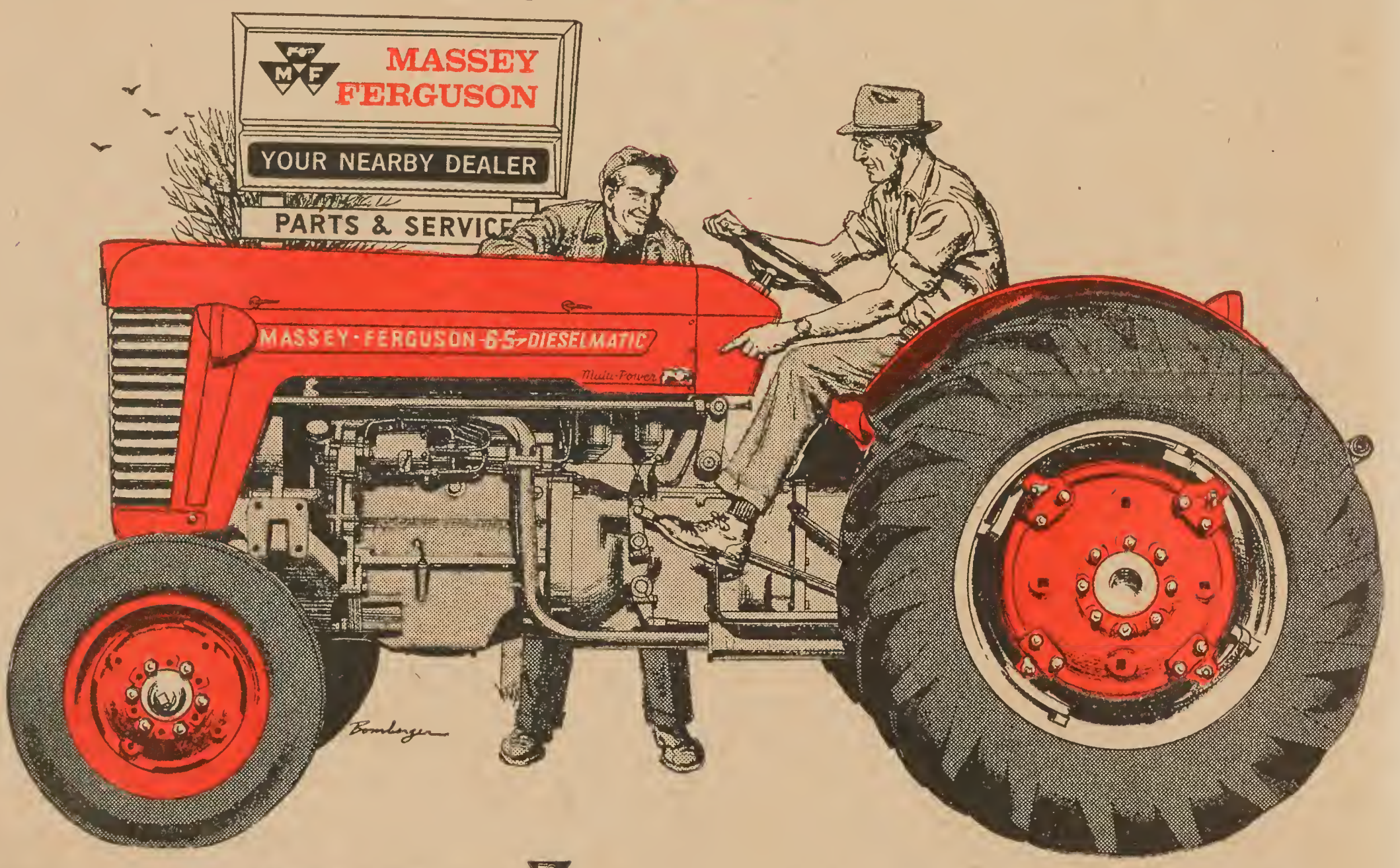
You've got to drive this one to believe it. Until you actually work it, you'll never understand how much work-ease and efficiency is possible in a rugged, all-job 4-plow tractor. It's the first fully automated tractor . . . the new Massey-Ferguson 65 Dieselmatic. You've got to see for yourself what you can do with Multi-Power transmission —the simplest, most practical shift on-the-go ever made. How effortlessly you gear down or speed up . . . at the mere flip of a switch. How instantly and smoothly it changes ground speed. And how practical it is to have 12 different forward speeds—all in direct gear drive. You must also discover the fully automated mastery over soil conditions you get with the Ferguson System. Draft is automatically controlled. And you can adjust the implement's depth, position, and speed of response—all three—with a touch of the Quadramatic Control. You'll also get the feel of big power and efficiency from the Dieselmatic's new Direct Injection engine. Gives you up to 15% better fuel economy than older types. It's the power plant of the future—Massey-Ferguson engineered and built. Other automated features on the Dieselmatic include power steering, power-adjusted rear wheels, variable drive PTO, and differential lock—all standard equipment. You get your choice of 4 front-end styles, and easy M-F time payment plans. See it. Try it. Your nearby Massey-Ferguson Dealer has it. The closest thing to push-button power . . . the all-new MF 65 Dieselmatic.


DIRECT INJECTION


FERGUSON SYSTEM




DIFFERENTIAL LOCK



Look, Compare . . . **Massey-Ferguson** World's Largest Manufacturer of Tractors and SP Combines

Founded 1842

AMERICAN AGRICULTURIST

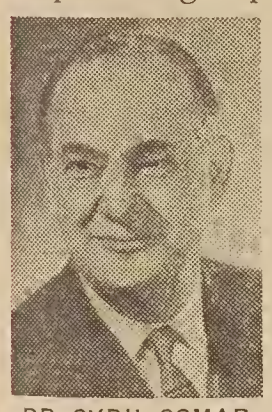
A Constructive Force in Northeastern Agriculture

JULY 1962

FOOD and FALLOUT!



NOW THAT the United States has resumed setting off the "big bangs" and the Russian bear has decided to growl right back, the air is more full of noise than fallout. It's humming with "scare" talk, with the shrill cries of protest groups, and many an author has used the subject for stories that have sacrificed truth for sensation.



DR. CYRIL COMAR

Now, it's impossible with bombs to "ask the man who owns one," but it is possible to check with men who have access to practically all the information available on fallout —the radioactive material that drifts down out of the sky after a nuclear explosion. Such a man is Cyril Comar of Cornell University, professor of physical biology and an advisor to the United Nations Scientific Committee on the Effects of Radiation. Here is how he replied to your editor's questions during a recent interview:

Dr. Comar, where do you stand on whether nuclear testing and research should be continued?

Well, any sane person realizes that nuclear warfare is not a desirable way to settle national differences. However, the prospect of mutual destruction may well be the hope for prevention of war.

I'm convinced that the President and his advisors are aware of the pros and cons of testing, and am satisfied that his decision to resume testing is in the best interests of the people of the free world. I wish we didn't have to test nuclear weapons, but believe it's important to keep part of the world free.

Actually, mankind is in little danger from recent or planned nuclear testing and most probably world-wide could even survive a nuclear war.

Do you foresee changes in eating habits because of these tests?

(Continued on Page 15)



Compact in everything except PERFORMANCE

What makes the Oliver 550 such a wise buy? Simple. You get compact dimensions at a compact price . . . with three-plow performance.

For example, the 550 has completely automatic, built-in control; 3-point hitch; power-steering; independent PTO; six forward speeds (two reverse); rubber torsion-spring seat (takes the backache out of field work); and a choice of gas or diesel engines.

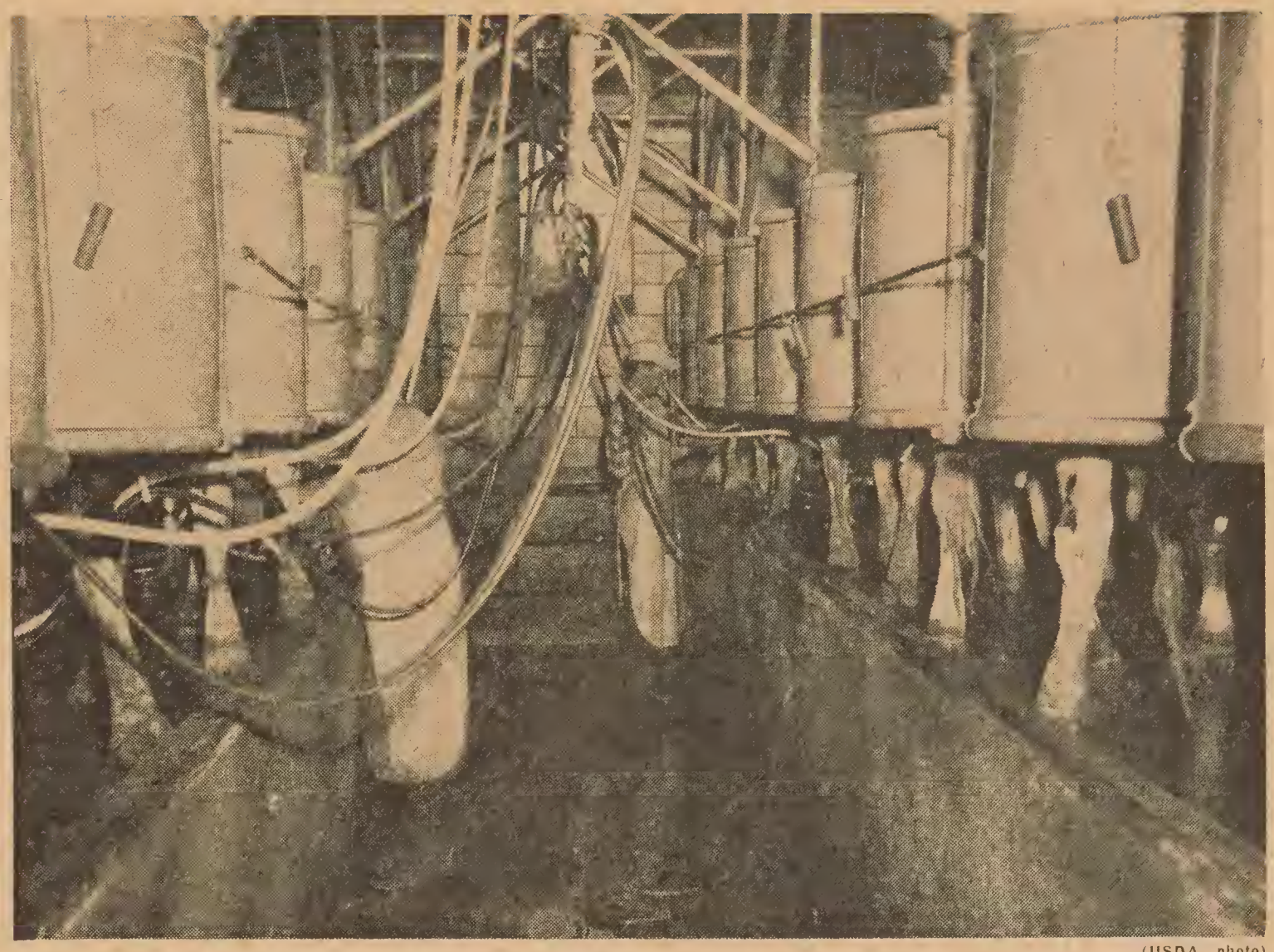
Pulling three bottoms, you'll discover the power and performance built into the Oliver 550. Nothing has been compromised in making the 550 the right buy for your needs. What's more, Oliver offers a wide choice of low-cost implements—like the fully-mounted 3241 plow in the picture, engineered to work as a team with the 550.

Test drive the 550 tractor in your fields. See for yourself how many high-performance features have been designed into this widely popular tractor. Ask your dealer for a field demonstration. Oliver Corporation, Chicago 6, Illinois.

OLIVER

Look for this sign,
new symbol of prompt,
dependable service and genuine Oliver parts.

Who would have guessed 15 years ago that milking would be done this way?



(USDA photo)

Here's How I See

Changes In Dairying

By ED HARRISON*

AGRICULTURE has changed rapidly. In a little more than a quarter of a century we have witnessed more changes in farming methods and practices than had taken place throughout the previous history of agriculture. In this brief period we have seen the horse practically disappear from the American farm, and in its place the development of a highly mechanized system of farming.

I am sure that we are all aware of these revolutionary changes, but are we conscious of the many less spectacular changes that have accompanied the major ones—changes that command us to stop and reappraise our business, to readjust our thinking, if we are to meet the challenge of a changing agriculture.

Family Farms

In the Northeast during the past ten years these has been an alarming decrease in the number of family-operated farms. I choose the word "alarming" because from the very beginning of the history of this country the American family has represented the very bulwark of American security and stability. It might be well if we took a look at some of the factors that are responsible for this great decline in our farm population in the Northeast. Taxes and land values have risen—combine these costs with that of purchasing the equipment and cattle necessary to start an operation, and we arrive at a figure that makes it prohibitive for a young man with limited capital to enter the business.

This means that we are seeing few new faces. Remember, too, that time has no respect for personalities. Regardless of our love and enthusiasm for the business, we grow old, and finally reach a stage when we must retire from active duty.

In addition to this, we must still face the fact that the Northeast farmer has long been a user of more feedstuff than he could produce. High federal grain subsidy for the great grain-producing area of this country has created an unbalanced economy; this unbalanced economy, in turn, has made it increasingly difficult for the small operator to maintain his business on a profit-making basis. We are living in a high-priced society.

Those remaining in the business are increasing the size of their operation in an attempt to meet this dollar shortage. The pattern is now fairly well established. Almost anywhere one travels in the Northeast the new barns and the additions to existing barns give proof of the trend. A few months ago, while traveling with a resident of a rather wealthy county in New York State, he pointed out that during the past 15 years the number of individual dairy operations in the county had decreased by almost 40 percent while milk production had increased by some 30 percent.

From farm visits that I have made, I have been forced to the conclusion that there are quite a number of dairymen who are increasing the size of their operations too rapidly. They have increased numbers to the point where they no longer have the manpower required properly to care for the cows, or the physical facilities to accommodate them. Where such conditions exist, the operator is actually lessening rather than enhancing his chances of surviving.

Numbers Game

At times I guess that we have all been guilty of comparing dairy operations in terms of number of cows milked and the number of acres of land farmed. Such a comparison is often very misleading. **Cow numbers are no substitute for efficiency.** In the production of both milk and foodstuff we are dealing with many fixed costs, costs that do not increase materially with an increase in the productive level. For this reason, the only reliable basis of comparing one operation with another is the number of quarts of milk and the number of pounds of foodstuff produced per man hour of labor invested.

With a sharp increase in all operating costs, good cows become a "must." Good cows, in turn, are the product of a constructive breeding program. I further believe that the opportunity for herd improvement, especially for the small operator with limited capital, is greater today than at any time in the history of the industry.

Artificial insemination, followed by the development of the frozen semen technique, has extended the use of the greatest bulls beyond the wildest dreams of anyone fifteen years ago. Realizing the potential value of these great bulls to the breed, the progressive artificial breeding associations have been willing to purchase them almost regardless of cost. It is not uncommon to hear quoted sales prices of from $25,000 to as high as $50,000. Add to these the great number of top privately-owned bulls whose semen has been made available either through private sale or through the selective mating program of the artificial breeding associations.

In spite of the modest cost involved in selecting a bull, there are still many dairymen who leave the breeding of their cows to chance. Above everything else, I do not wish to convey the idea that I think the good purebred breeder should cease to have his own bull. We have already gone dangerously far in this direction; we are not sampling enough bulls. There are great numbers of extremely well-bred bulls that go to the butcher without a chance to prove their value. Remember that the very backbone of the artificial breeding program is the privately proven bull.

The point that I really want to sell is that no breeder can afford to think in terms of "a cow is a cow." His primary concern should not be his poor cows but his best cows. It is to them he must look for future herd improvement. He should, therefore, select a service sire that holds promise of maintaining their quality and productive ability.

It costs just as much to raise a poor cow as it does a good one. A difference of 2,000 pounds a year in milk production in a four year period would mean over $300 additional income. When a dairyman finds the bull he would like to mate his best cow or cows to, a little difference in semen cost should not discourage him, because it could be returned to him many times over.

As important as good cows are, they are not enough. A cow may inherit the ability for record performance, but she can only perform in accordance with her inherited ability when placed in an environment that is equal to or better than her inheritance. There are many environmental factors capable of influencing the productive level of the dairy cow, so I can only discuss a few of the more important ones.

Feed More

One of these is the failure to feed the cow in accordance with her ability to respond. It is what Dr. Huffman of Michigan State often refers to as "hollow gut." I am ready to buy his term, but what we should be concerned about are the causes of the hollow gut. Regardless of the amount of feed offered the cow, if the ration is of low quality, especially the roughage, it often proves to be so unpalatable that the cow will not consume it in large enough amounts to support high production.

Then there are those operators who think they are saving money when they skimp on grain and other feeds, and simply fail to understand the economics of milk production. If they would compare their overall operating costs with the size of the milk check, they would soon discover their error.

In many other cases the total feed provided the herd should have been close to being adequate to meet herd needs, but it was poorly proportioned. The lazy cows were overfed, and the good cows did not get enough feed to enable them to maintain a high level of production.

Daily milk weights would be a great help to these dairymen in learning to know their cows. They provide the **only** reliable guide to intelligent feeding, plus a great deal of other valuable information that time has proven of real help in better herd management. Daily milk weights have largely gone out of style, because of a false belief that they represent a lot of unnecessary work. This is not true; with a little planning, milk weights can be obtained in a matter of a few seconds per cow. Certainly that is little time expended when compared to their value in herd management.

*Harden Farms, Camden, N. Y.

Editorials



By Gordon Conklin

HELP! HELP! HELP!

LET ME tell you about an underdeveloped nation; before I'm through I hope you'll resolve to write your legislators that something should be done about it. How different can be the living standards between nations!

When I say underdeveloped, it's a gross understatement—this nation's 4,000,000 inhabitants are scattered along endless miles of seacoast. It has no railroads, practically no roads, little industry, only a few hospitals, and the most primitive educational facilities.

The wealthy nations of the world are divided into two groups in attitude toward this struggling nation. One group couldn't care less whether it ceased to exist or not; the other group is interested in plundering it—and one nation has already attempted to force its subjugation.

Years of war with this more powerful country and with other hostile people along its western borders have plunged the country deeply into debt. Internally, it is torn with jealousies among its leaders.

There should be a law! There should be a program! There should be an appropriation! Let's set up an agency to help uplift these downtrodden peoples!

The country I am describing is our own nation in the year 1795. It received no foreign aid as we think of it today, did not bemoan its fate by looking longingly at the comparative luxury of rich and powerful nations overseas. Its people had already fled those nations to escape the tyranny of allied church and state.

Today is the age of the astronaut, of the glib belief that the convictions of our ancestors do not fit the 20th century. But do our convictions carry the power to accomplish what theirs did?

The Fourth of July is a day of Yankee Doodle, fireworks, parades, and watermelon—but it is also something more. It is a day to ponder the history of individual liberty, the paths which have led to its attainment—and the paths that have eroded it into bitter dust. It is a day to ponder the importance of freedom in the development of a nation's wealth **by its own people,** and the process whereby "underdeveloped" nations—and individuals—may best be helped to help themselves.

SALT OF THE EARTH

A FRIEND of mine who had seen his allotted three score years and ten died soon after the beginning of the new year. We have all known men like him—we call them the salt of the earth.

He had never traveled very far from his farm, was not considered a "leader" in his community. But the promise of a new dawn twinkled from his eyes, the peace of an Indian Summer sunset was in his voice. He had smelled the good earth as his plow drew the design of a new spring; he knew the song of a meadowlark on a summer morning—these things were a part of him.

But he was not merely a "nice man," for he had seen more than his share of heartbreak, of problems, and of hard work. Through it all, he was able to laugh, to be cheerful and helpful. His capacity for self-discipline shamed me, but he had vast understanding and tolerance for the frailities of others. He possessed wisdom in large measure, but had not a trace of arrogance. His religious convictions were a part of his very bone marrow, but he never condemned those who chose to laugh at him for his faithfulness to those convictions. He loved deeply, dealt justly, and walked humbly along a rocky path.

It is impossible for me to adequately put into words the admiration I feel for such a man.

PLAYING POST OFFICE

SOMEWHERE in the dim recesses of memory, I seem to recall that "post office" is some sort of kissing game. Recent efforts of the Post Office Department to increase second class postal rates promise to give the kiss of death to some publications.

Sure, an editor probably can't be entirely objective about something that will affect his ability to meet his own mortgage payment and take care of the taxes. I don't expect that you should be vitally interested in whether American Agriculturist makes a profit, but I believe you should consider the question of postal rates from the viewpoint of the national interest, and also in terms of service to you by publications to be affected.

A bill being considered by Congress calls for an increase in postage that would add well over $30,000 to the annual expense of American Agriculturist, which is far more than our annual profit.

Interestingly enough, this jump in cost would hit hardest the smaller magazines, because it would be levied on number of issues mailed rather than on weight. Also, the "bare bosom" and the "torrid thrill" magazines would suffer practically not at all, because most of them are sold from newsstands rather than being delivered in the mail.

The yearly postal deficit is a huge one, due to many things. Employees and business practices of the Department are not subjected to the merciless — but sharpening — demands of competition. Many extra tasks have to be carried by its budget, such as selling migratory bird stamps, registering aliens, distributing Census Bureau forms, and carrying free official (franked) mail. Senator Hubert Humphrey estimates a cost tag for these services of $400 million annually.

There has been only one change in first class mail rates in 29 years—from 3¢ to 4¢ in 1958. Second class mail rates have increased 89 percent just since 1945; the new bill calls for a jump of 178 percent above 1945.

Practically every copy of every farm paper is delivered through the mails; this particular group of publications would be especially hard hit by the passage of the new law. A number of them would be forced to fold their tents and quietly fade away.

I believe that the handling of mail should be automated far more rapidly, that letter postage should be 6¢ instead of four, and that second and third-class rates should be increased in proportion to first-class increases, rather than much more rapidly, as proposed.

What do you think?

WHO'S HARD-BOILED?

MANY OF THE apologists for tighter controls on farmers by government comment that "Sure, the marketplace works—but it's so heartless! Administrative control of prices and production would be much more humanitarian."

Have you read about Billie Sol Estes, that empty-hearted—but full-headed—crook who took advantage of every angle of the price support program? He's done a bigger and better job of hooking Uncle Sam—and the taxpayers—than most people could imagine.

He had a scheme to match every paragraph in the farm price support law, including a 54 million bushel surplus grain storage empire and a system of buying up cotton acreage allotments to the tune of 3,000 acres. He knew exactly how to use the greed in human nature to get the help of others in "working" the system.

Do we really believe that the marketplace is less just than Billie and the men he bought in the USDA? At least the open market is impartial—but can the same be said for a man in authority who has had his palm thoroughly greased?

Before we buy—lock, stock and barrel—the notion that we want tighter controls administered by men in Washington, let's remember the shenanigans of Billie Sol, made possible by the maze of regulations with which agriculture is already shackled.

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

Founded 1842 Volume 159 No. 7

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AA's Farm Dollar Guide

HAY YIELDS ARE LOW in the Northeast. Dairymen have been slow to adopt recommended practice of putting oats in silo. Under present conditions, you might take another look.

WINTER WHEAT predicted yield declined considerably during May. POTATO acreages down 3% in East; 2% in Central States; 8% in West; not enough reduction to balance supply and demand if season is normal.

Fall TURKEY prices predicted as about 5 cents above '61; BROILER prices July-September about 2 cents above '61. U. S. FARM EGG PRICES for year beginning October 1 likely to average about same as present year.

BEFORE STORING GRAIN, bins need cleaning. Remove all old grain, sweep walls and floors, patch cracks and holes, spray with insecticide containing 2.5% methoxychlor, or .5% pyrethrins.

CHANCES FOR PASSING A FARM BILL LOOK BETTER. Would force feed grain and wheat growers to choose between strict controls plus supports and no control with no price supports. Administration push claimed to be based on determination to cut costs of program.

Bill contains no dairy provision. Discussed but rejected was compulsory production control, also voluntary control with rewards for those who reduced, penalties for those who increased production. Recent proposal is two price system, with quotas for fluid milk, but permitting unlimited production at a manufacturing price for excess.

U. S. SUPREME COURT RULES as unconstitutional the formulas for setting fees charged milk dealers outside certain order areas (including New York-New Jersey) who ship milk into the area. Case was brought by Lehigh Valley (Pa.) Cooperative. USDA will try to develop new formula to meet objection. Decision may bring rash of court cases; might possibly reduce effectiveness of milk marketing orders.

GASOLINE STORED in above-ground tanks shows much less loss from evaporation when tanks are provided with a valve to maintain 3 lbs. of pressure within the tank. Keeping tank in shaded place also helps.

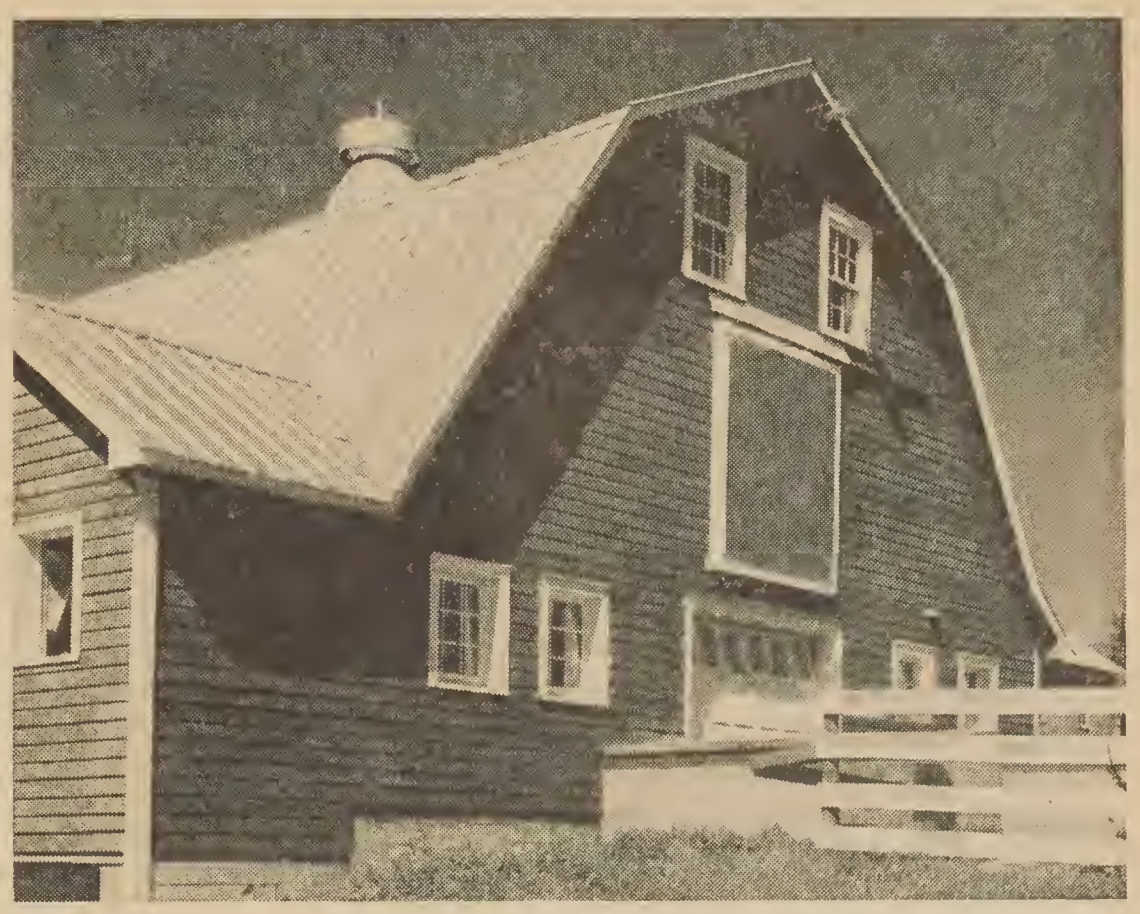
THE EXPERIENCE OF DAIRYMEN indicates that heavy grain feeding pays. In particular, the trend is to heavier summer grain feeding, on many farms at a rate approaching the amount fed in winter.

The Song of the Lazy Farmer

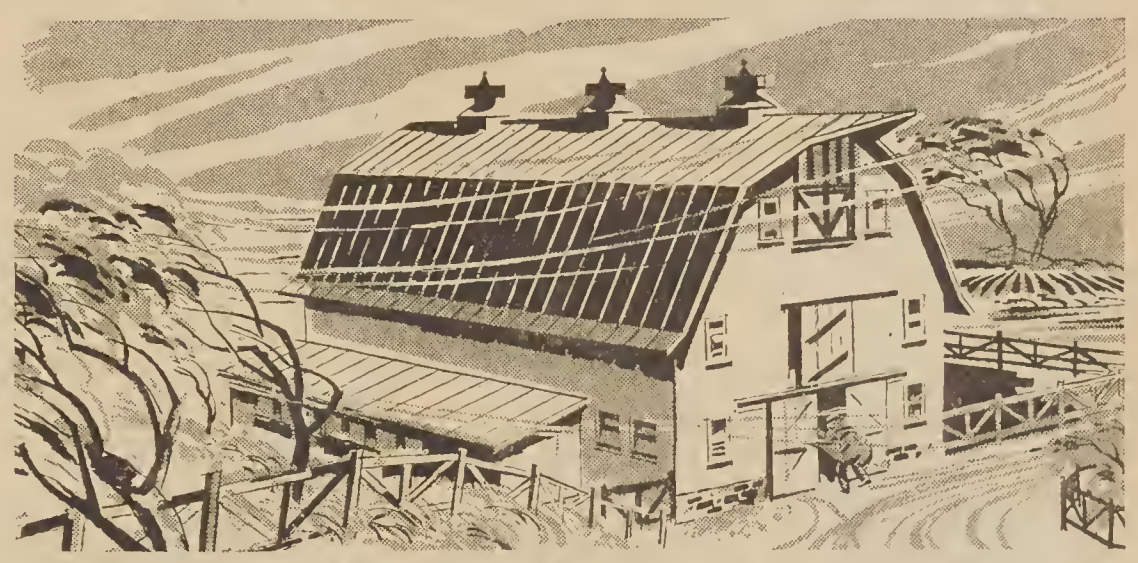


FOR YEARS I've felt machinery ain't all that it's cracked up to be. You need a lot more cash, of course, to buy a tractor than a horse; for gasoline you have to pay more than for oats and hay, and I have figured that my time is maybe worth about a dime an hour, and so I do not need to do my work with utmost speed. Besides, I'm almost always through with all the things I have to do as fast as neighbor is, 'cause he must hump with his machinery to get ten acres' work all done while I am cov'ring only one.

But now it seems that all along I may have been completely wrong, 'cause lately I've been reading where some college engineers declare that how much money you can spend on farm equipment will depend upon how advantageously you use the time you save, by gee. In that case, I guess I'd be wise to sell my team and mechanize; 'cause, come to think of it, most springs I have to skip important things. While those slow nags plod to and fro, I seldom have the time to go down to the crick when fishing's best, and it is June 'fore I can rest.



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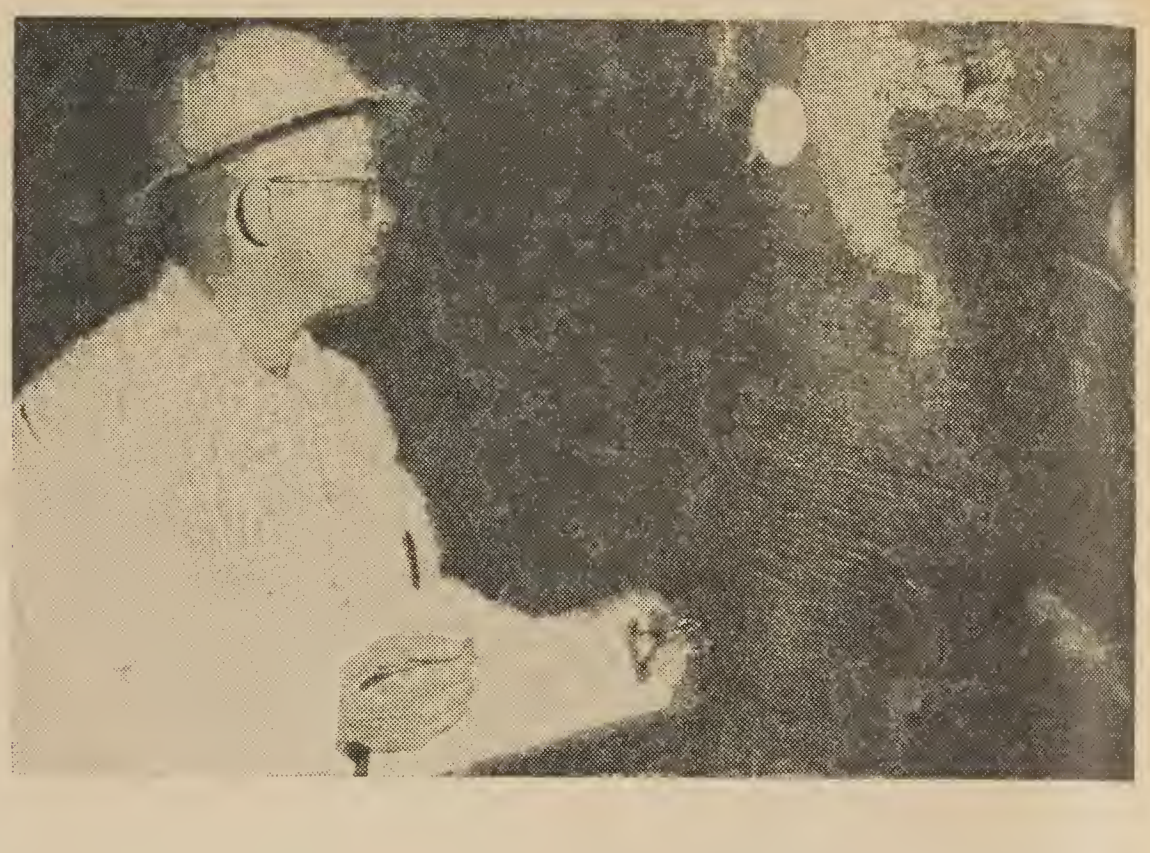
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Here's the Score on the N.Y.S.

Meat Inspection Law



IN 1961 THE New York State Legislature passed a statewide, compulsory meat inspection law so that all meat slaughtered and processed in the State would come under inspection. Before this law could be implemented, the 1962 Legislature passed a more comprehensive one (Article 5B of the Agriculture and Markets Law), which will go into effect March 1, 1963.

So that you may have the most up-to-date information on the new meat inspection law, here is a report of an interview between Editor Gordon Conklin and Dr. William E. Jennings, Director of Meat Inspection Service, New York State Department of Agriculture and Markets.

Isn't Federal meat inspection enough?

No. It covers only about 60 percent of meat in the United States, only meat and meat products shipped interstate and for import and export.

Of approximately 950 establishments which slaughter and/or process meats and meat products in New York State, only 110 come under Federal inspection.

What does the new law require?

1. Inspection of all establishments slaughtering and processing meats and meat products for human consumption which are exposed for sale or transported within the State.

2. Ante-mortem and post-mortem inspection of all animals (before and after slaughter).

3. Marking and labeling of meats and meat products.

4. Inspection of all meat products during processing.

Are there any exemptions under the law?

Yes. (1) A bona fide farmer can slaughter his own animals, on his own premises, **for his own use,** without inspection. However, if a producer wishes, he can take an animal to an inspected slaughter house, pay the inspection fee, and then bring the carcass home and sell it to someone else.

(2) Establishments operating under Federal or New York City Board of Health inspection are not subject to State inspection.

Are there any additional exemptions?

Yes. The regulations to be administered by the Commissioner of Agriculture and Markets under the law provide that "establishments engaged exclusively in the preparation of fresh meats **for sale at retail** with or without seasoning, by cutting, grinding, chopping, salting, or corning, are exempt from inspection." An example of such an establishment is the retail corner meat market.

What is the four-fold purpose of the new meat inspection law?

1. To detect disease conditions early and prevent their spread to other animals, thereby protecting the financial investment of the livestock owner.

2. Protection of the consumer and the reliable processor by assurance that wholesome, properly labeled and represented meats and meat products are offered for sale.

3. Insurance of free flow of meats within the State, and fair competition by removing artificial, inspection-imposed barriers.

4. Safeguard human health from diseases of animals transmitted to man.

Who will pay for the inspection?

The law provides that the cost of inspection may be borne in part by the slaughterer and/or processor at a rate to be fixed by the Commissioner of Agriculture & Markets, after public hearings. Inspection of custom-slaughtered meat for producer consumption will be provided without cost. If a portion of custom-slaughtered animals is to be sold, producer must pay inspection fee.

How will inspected meats be identified?

All inspected meat will be stamped, branded, or labeled with the phrase "NYSDA&M INSPECTED & PASSED" on each wholesale cut of the carcass and/or other parts such as the liver, heart, and tongue. Products not so stamped or labeled (unless stamped by Federal inspectors) are subject to seizure and destruction by the Commissioner.

How does the processing or freezing plant handle meat that a farmer has slaughtered on his own premises?

The Department of Agriculture & Markets will furnish the farmer with a certificate, which will be filled in, numbered and filed for at least a year at the plant. The transported meat will be marked "Farmer's Meat —Not For Sale" to preclude its entry into the channels of trade.

How will custom-slaughtered meat be identified?

It will be stamped or labeled "CUSTOM-SLAUGHTERED MEAT — NOT FOR SALE."

What animals are subject to inspection?

Cattle, swine, sheep, goats, horses, and other large domesticated animals.

What is meant by "other large domesticated animals?"

Such animals as bison, reindeer, antelope, etc. raised commercially. Prior authorization is required from the Commissioner of Agriculture & Markets before such animals can be slaughtered and exposed for sale, and appropriate facilities must first be provided.

Who will conduct the inspection?

Lay personnel under the direct supervision of veterinarians, both groups employed by the New York State Department of Agriculture & Markets.

Can horsemeat be used as human food?

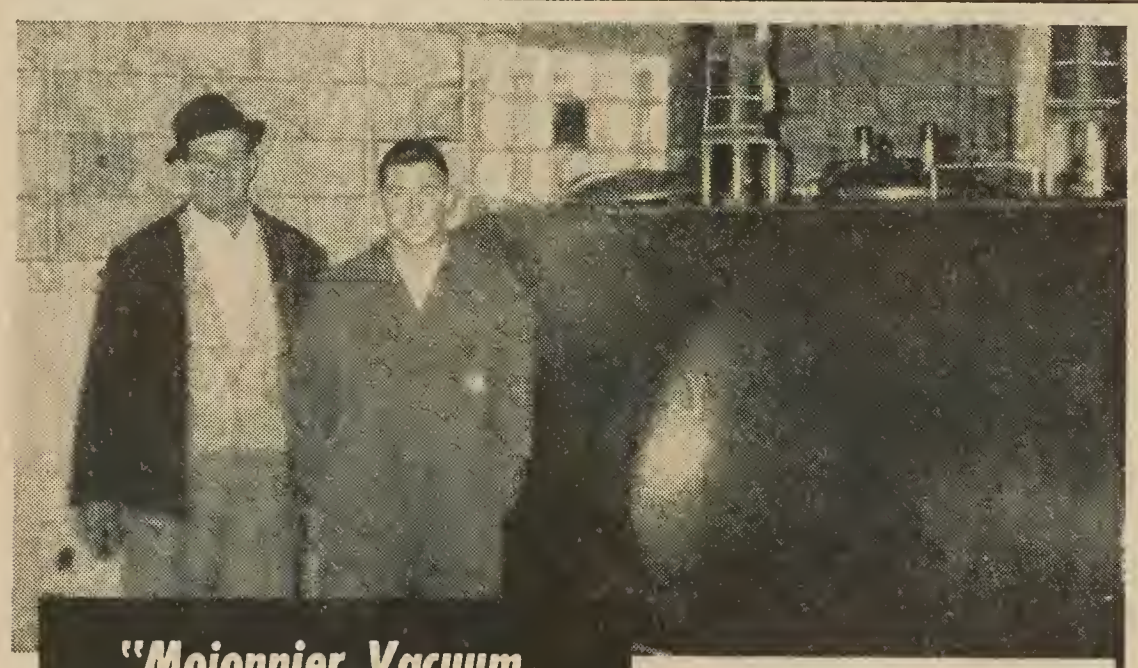
Yes, if inspected and branded with green ink or a green meat label. Horses cannot be slaughtered in an establishment handling meat of other animals.

Can a farmer kill his own animal and sell half to a neighbor?

No. The law requires that all meat exposed for sale or transported within the State be inspected. The **only** exemption is his own animal, on his own premises, for his own use. However, remember that I previously said that he could have the animal slaughtered in a licensed slaughterhouse, pay the inspection fee, and **then** sell a portion of it to his neighbor.

Can a farmer give a quarter of beef to his hired man?

If the animal is slaughtered on the farmer's own premises, it is the opinion of the Department of Agriculture & Markets that this transaction is in the farmer's own "business family," and therefore no inspection would be required.



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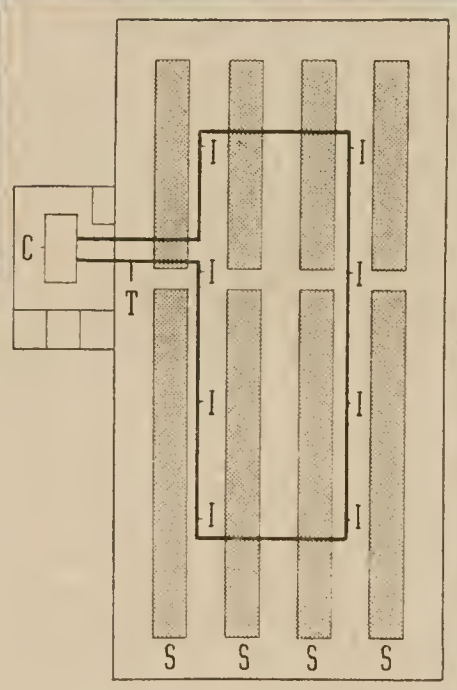
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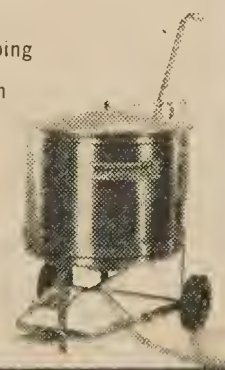
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For more information on CRAG Fly Repellent, write CRAG Agricultural Chemicals, Union Carbide Chemicals Company, Division of Union Carbide Corporation, 270 Park Avenue, New York 17, N. Y.

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The partnership! Left to right, back row: Albert, Bob and Fred, Jr. Seated in front, Mr. and Mrs. Fred Worth.

This Family Incorporated Their Farm Business

By Hugh Cosline

BACK IN 1956 Fred Worth and his three sons, Bob, Albert and Fred, Jr. took legal steps to incorporate into one the three vegetable farms they were operating near Mount Holly, New Jersey. They are glad they did.

"The advantages come in two ways," said Bob. "First, it gives permanence to the farm. In case any one of us should die suddenly, the farm business will go on and the family affected by the tragedy is protected by a "Buy and Sell" agreement. Second, there are some advantages taxwise. Since a corporation continues indefinitely, there is never any inheritance tax. The corporation files a partnership return as a small business corporation, and each stockholder makes a return and pays an individual income tax on his share of the profits."

Each of the sons has a salary or drawing account, then twice a year a salary adjustment is figured.

Important management decisions could cause friction, but don't — partly because each man has an area of work for which he is responsible. Bob keeps his fingers on the accounts, supervises pest and disease control, and is responsible for sales. Albert, among other things, has charge of irrigation, as well as of growing and buying plants to be set out. Fred, Jr., has charge of other phases of field production and machinery maintenance, with overlapping of management when needed.

The Worth family believes firmly that there is more to life than work and profits. They own a cottage at the seashore which is in constant use in summer. During the week Mr. and Mrs. Fred, Sr. use it, and every third weekend, no matter how busy they may be, one of the boys and his family take off for the cottage and a bit of needed relaxation. They agree with the man who said he could do a year's work in eleven months, but couldn't seem to do it in twelve!

The Worths are following a definite trend toward fewer crops, and are concentrating on the ones that accounts show have been more profitable. These crops are sweet corn, cabbage, lettuce and white turnips. Irrigation is standard practice on all crops.

A complete spray program for insect and disease control is followed. "It's a case of prevention rather than cure," Bob remarked. "Often you wonder what you are spraying for because you can't see anything, but once an insect or a disease gets a foothold, it's too late!"

Marketing the volume produced on the Worth farm is a problem, but one that is handled smoothly. A large part is sold to chain stores, where there is fine two-way cooperation. Bob keeps the buyers informed of what will be ready the coming week and, in some cases, he is told

(Continued on Page 15)

SHOULD YOU INCORPORATE YOUR FARM?

Advantages

1. A corporation may find it easier to borrow money. It assures continuity of the farm business, and removes the danger of a forced sale to satisfy the claims of heirs. It often lessens inheritance taxes.
2. It limits business liability. A stockholder can be sued only for the value of his stock.
3. Dividing income among stockholders may put each one in a lower income tax bracket.
4. It usually provides a more efficient way to run a farm were two or more people are involved.

Disadvantages

1. There are additional costs for lawyers' and accountants' fees. (Consult an attorney before you decide to incorporate.)
2. An annual meeting must be held, minutes kept, and reports filed. This makes extra work.
3. Persons other than the operators COULD get control by buying stock.
4. Dissolving the corporation, if desired, may be involved and expensive. It is easier to form a corporation than to dissolve it.



A MOST USEFUL TOOL—REMODELED

ALMOST from the first month we started farming we have been in the DHIC testing program. It has been a great help to us as to hundreds of others. In fact, we just don't cull a cow or raise a heifer calf without first consulting "the herd book."

Likewise, about the day the book gets back each month we re-figure grain weights for each cow. These are revised between testing dates, but at least the figures in the book are the **basis** for determining the rate of grain feeding. I would just hate to try to manage a herd of cows without a monthly check on their production and a record of the present and past lactations.

All this the program has been giving us—and much more. In fact, it provided a lot we didn't use. For example, we are interested in milk production and not butterfat. Inasmuch as there is a clear indication that high fat milk is not wanted, we have made no effort to get a high testing herd—nor do we expect to unless the butterfat differential becomes larger than at present.

We are, therefore, raising our calves from the cows which give the most milk regardless of test or total fat production. In fact, we have quit talking about a "500 pound fat cow" — she is simply a "14,000 pound cow." This being the case with us—and I realize that most dairymen have different notions on this subject—we find ourselves almost never using the columns in the book headed "Butterfat test" and "Butterfat pounds."

In like manner, we have never used the material computed each month on value of product over feed cost. I guess the main reason we never went on a central processing basis was that there seemed to be a great deal of good useful information coming back — but useful only if one is going to use it. It was apparent that we weren't going to use this extra information, so it seemed useless to pay for it. As a matter of fact, for several months we have felt we were paying the tester to do a lot of work for us which we were not using and which, if not used, was of no value to us.

So now we have set up a new weighing record-keeping procedure apart from DHIC. We simply have a boy from town come out once a month on or about the same day each month. He weighs the milk night and morning, then figures up the monthly production and accumulates the total production from previous months. Of course, the sheets will continue to record freshening dates, disposition of calves, etc. In other words, we will now have only what we have been using and will be paying for only that much.

Now, of course, if we were interested in selling breeding stock instead of or in addition to selling milk, butterfat records would be of value. Also, if we were good enough dairymen to use all the information we have been paying for, it would have paid to stay on DHIC. However, we have been and continue to be primarily interested in reasonably high production per cow and per man as the road to most net income. Depending on his conditions and talents, the next man may well choose a different road toward his goals.

WINDROWERS

Several years ago, I had a chance to run a 12 foot mower-windrower machine on some irrigated third cutting alfalfa while visiting relatives out in west central Wyoming. Since then we have seen these machines by the dozens in the grain country, where much of the grain is cut and windrowed, left to cure (both the grain and the green stuff in it) and then threshed from the windrows by use of pick-up attachments on the combines.

None of this seemed too practical for us in the Northeast with our high rainfall — most years, that is.

However, with the addition of conditioners built into this machine and with drying equipment on many farms—well, sir—I'm anxious to see these machines work, and to see how the hay cures out in 10 or 12 foot windrows made while the hay is still grass green.

If the hay can be handled this way, think of the hours saved running over the ground to mow, condition, and rake it—not to mention the reduction in exposure by having this hay in the windrow instead of flat in the swath. Frankly, we're not going to lay $5,000 on the line to find out if all this will work here—but you can bet we'll be present when some dealer gets ready to demonstrate one.

MORE WEEDS

Sometimes it seems we are like the Federal government. They never solve any agricultural problems; merely change the nature of the problem, calling for new programs, etc. Our program on oats is like this. Last year, when oats went so flat, we were convinced we should do more than just disk and then sow oats, in order that the ground would be left smoother so the combine could be run right down close. So this spring we disked, then harrowed, sowed, and rolled the land; had a nice smooth pretty-looking job at much too high a cost, and at spraying time there were more weeds than we've had for years! Possibly as long as the 2,4-D gets the weeds we will still be ahead to have the land smooth in case the grain lodges. However, as dry as it has been, we had no business letting weeds use up as much moisture as they must have used.



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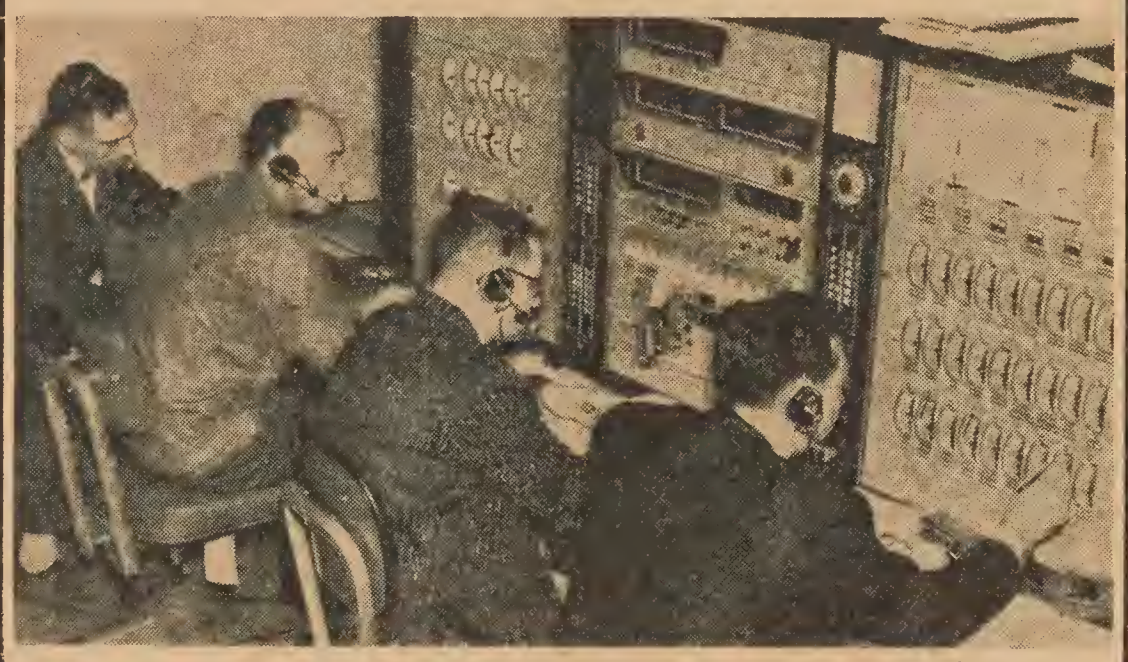
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*average figures from the N.Y.-N.J. Market Administrator's office.

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Personal Farm Experience

Bulk Fruit Bins

WE USED bulk bins for our apple crop for the first time in the fall of 1961. About 25,000 bushels of apples were picked in this manner, and another 15,000 bushels in crates, which gave us a good comparison in the way of costs, bruising, etc.

We finally decided on a bulk bin not over 30 inches in overall height nor over 24 inches inside, and sturdy enough to withstand any wracking or bulging that might bruise McIntosh. We did find, however, that this size bin was rather heavy and difficult to nest.

The equipment for handling consists of a Ferguson tractor with an M-F 102 loader on the front end and a Blackwelder three point hitch fork on the rear, and a Ford with a Blackwelder of the same type on the rear. It is possible to spend a great deal of money for bulk lifts, but we use one of the least expensive, on farm tractors that can also be used for other things.

In 1962 we are planning to handle all of our apples with bulk bins, saving on labor and involving fewer problems. There is less bruising of the fruit because, after dumping the first few buckets, the picker doesn't have to lean over as far as he would with a bushel crate. The temptation, of course, instead of leaning over is to **drop** the apples into the crate.

There are fewer stem punctures, too, with the bulk bin method, because there is no hand leveling. Pickers are required to work around the bin as they dump, so the only "leveling" involved is that they merely stop when the bin is full.

When the crop reaches the packing house a U-shaped roller conveyor some 50 feet long conveys the bins into the dumper in a straight-through flow, with the empties returning on the other leg of the U. They are submersed hydraulically, and the apples gently floated onto elevating rolls by circulation of water—to be washed and dried before entering the sorting rolls. Part of the crop, of course, goes directly to storage, and is held in the bulk bins until graded.

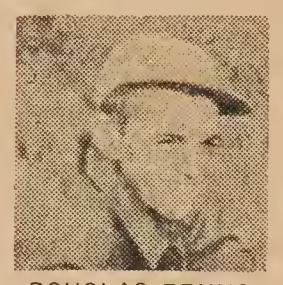
There was somewhat less bruising on the McIntosh in bins as compared to crates, probably due to the ease of dumping buckets, less bouncing around on orchard trailers, and less overall handling. The labor cost was reduced considerably over previous years; two men easily did all the work involved in handling the 25,000 bushels in bins—and, in addition, did most of the trucking. So far we like what we have seen.—*Elliott Smith, Kinderhook, N. Y.*

Mechanical Cherry Harvesting

During the 1960 and 1961 seasons we used mechanical harvesting for part of our cherry crop, and got good results both years, with no change in equipment except to enlarge the catching frames. Ours is one of the early type shakers mounted on a tractor, and takes three men to operate; one man drives the tractor, while the other two handle the catching frames.

It was a good fruit year in 1961, and we harvested 1,000 tons of cherries, about 125 tons of which were gathered with the mechanical shaker. One big asset in mechanical harvesting is the saving in labor costs. In the 1960 season, the saving in mechanical over hand picking costs was ½ cent per pound, but the following year it rose to between 1½ and 2 cents per pound.

The optimum harvesting time can only be determined by trial and error—it is usually when 95 percent of the cherries will shake off without much effort. However, when the fruit is ready for harvesting the shaker can work 24 hours a day, and the crop is harvested fast. A light in the middle of the tree at night makes it easy to position the shaker boom on the scaffold limbs.



DOUGLAS BRUNO

I don't believe there is any more risk of having winds damage the crop with mechanical harvesting than with hand picking; it is more than balanced by the speed of harvesting. Our harvest period takes about four weeks, depending on the location of the orchard — distance from the lake, elevation, etc.

To transport the crop, we use tanks that gross a ton in weight with the water and 300 pounds of ice included; the payload is about a thousand pounds of cherries.

Competition

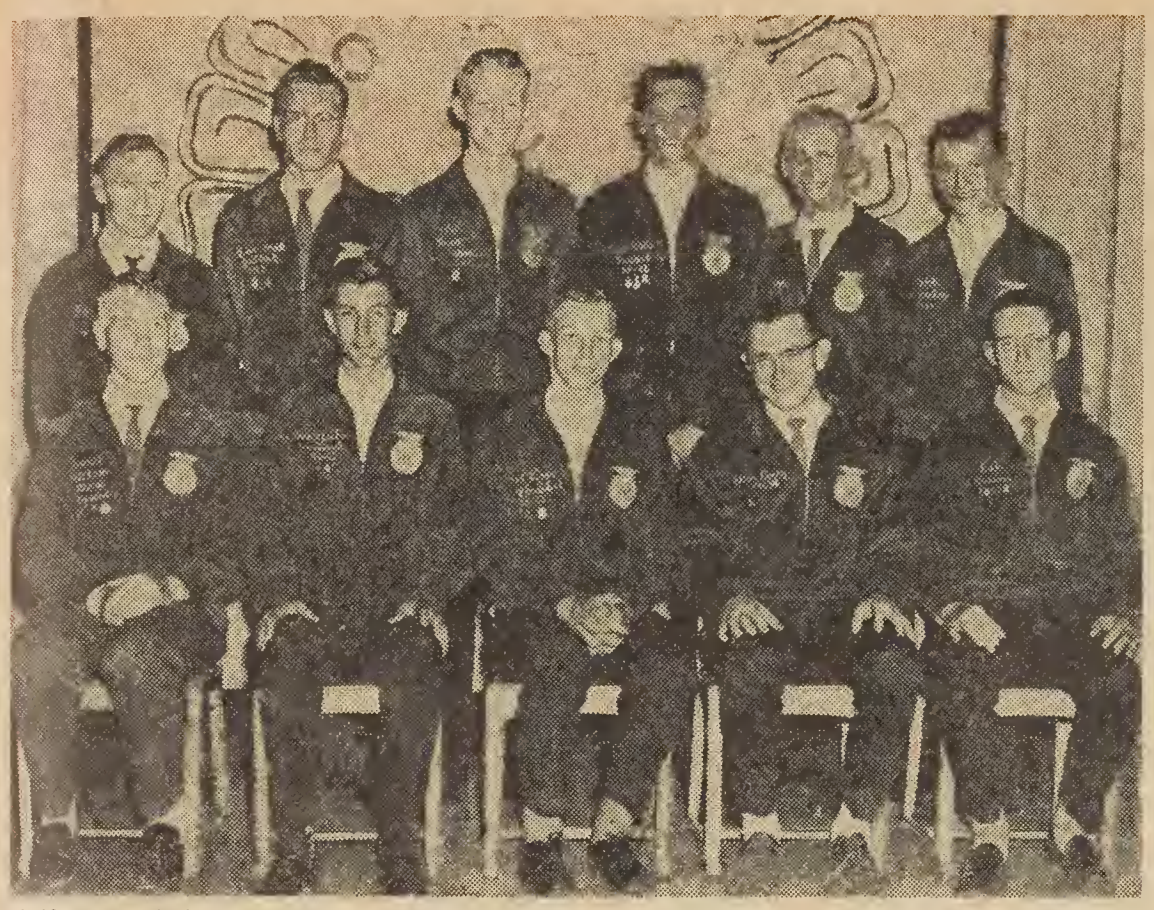
I feel that the mechanical harvester helps us to stay in competition with other areas; all indications are that they are planning their operations along mechanical lines. There is, of course, the problem of complete acceptability at the processing plants, a problem that I feel sure will be overcome by steadily improving equipment—and by efforts on the part of the operators to keep the quality high. Some practices that I feel are important in this regard are:

1. Begin by raising as good a quality cherry as possible. Aside from wind bruises (over which we have little control) they should be firm and free of rot. Cultural practices, fertilizer programs, and pesticides all influence this.

2. Don't be in too much of a hurry. Wait till the cherries are at optimum—then put in long hours harvesting. That way you will get better quality, with less stems, and you can make best use of your equipment.

3. Belts and conveyors to the hauling tanks should be kept moist with water so the cherries won't stick, scrub and bruise.

We are going to wait for new developments in shakers before buying new equipment. Using one of the early types has been invaluable to us, because now we know what to look for in the new ones. We'd certainly hate to go back to all hand picking, with its time-consuming features and anxiety about getting the crop harvested in time.—*Douglas Bruno, Sodus Fruit Farm, Sodus, New York*



Officers of the New York Association of Future Farmers of America for 1962-63, elected at the recent annual convention. Left to right, front row: Stewart Ketcham, Greenville, secretary; Ronald Becker, Cobleskill, treasurer; Alfred Gibbs, Slate Hill, newly elected president; Allen Perry, Homer, reporter; Richard Hansen, Cherry Valley, sentinel. Rear row (all vice presidents): Raymond Stevens, Cortland; Bruce Merle, Attica; Peter Hansen, Slate Hill; Allen Wells, Corning; Floyd S. Dubbin, Jr., Cherry Valley, winner of Star Farmer certificate and $200 award; John Hirschey, Lowville. Larry Rose, Cherry Valley, won the Speaking Contest.

EMPIRE and KEYSTONE STATES

Retired — Dr. Arthur J. Pratt, professor of vegetable crops at the New York State College of Agriculture, retired July 1. He came to Cornell as an assistant in vegetable crops in 1927, and during the years there has devoted much time and effort to work with 4-H boys and girls in addition to his work with vegetable crops.

Competition — Entries for the U.S.-wide Forage Competition at the First National Grassland Field Days and Conference (August 16-17), Hershey, Pennsylvania, close Friday, August 10. Long hay is wanted, and an exhibit will consist of a bale section about 8" thick, or an equivalent amount if cut from hay in the mow. The crop must have been harvested during 1962.

Annual Meeting — James H. Speer, Blairs Mills, Pa. was elected president of Eastern Milk Producers Cooperative at the annual meeting held in Syracuse on June 5. Robert Curran, Houghton, N. Y. was elected vice-president, and Howard Merrill, Walton, N. Y. and Myron Hawkins, Newport, N. Y. were re-elected secretary and treasurer respectively.

Max Lonstein, South New Berlin, N. Y. and Irwin Schell, Evans Mills, N. Y. were elected new members of the board of directors; all other directors continued in office.

Manager — John S. Gold has been named General Manager of the New York Farm Bureau Marketing Cooperative. The new organization has begun work with growers of processing apples.

Leads — For the first time, New York State leads the nation in production of maple syrup (topping Vermont) with a total production of 524,000 gallons.

Batting Average — New York State Grange had a batting average of 86% on legislative action taken by the recent session of the Legislature, with 56 bills signed by the Governor and 9 vetoed.

According to New York State Grange Legislative Representative Kenneth Fake, Cobleskill, among other matters the Grange will continue to stress raising the legal minimum drinking age from 18 to 21, and to work for an acceptable compromise on the bill to sell raw milk at the farm, scheduled to go into effect July 1, 1963.

Resigns — Dr. Herrell DeGraff, Babcock Professor of Food Economics at Cornell University since 1951, leaves July 1 to become a member of the executive staff of the American Meat Institute in Chicago.

FAIRS FOR NEW YORK STATE

Afton	July 15-21
Albany, Schenectady, Green Counties	Aug. 13-18
Allegany Co.	Aug. 7-11
Boonville	July 30-Aug. 4
Brookfield-Madison	July 24-28
Broome Co.	July 29-Aug. 4
Caledonia	Aug. 7-11
Cambridge Valley	Aug. 21-25
Cattaraugus Co.	Aug. 13-18
Chautauqua Co.	July 23-28
Chemung Co.	Aug. 12-18
Chenango Co.	Aug. 6-11
Clinton Co.	July 31-Aug. 4
Columbia Co.	Aug. 31-Sept. 3
Delaware Valley	Aug. 13-18
Dundee	Sept. 20-22
Dutchess Co.	Aug. 21-26
Erie Co.	Aug. 18-25
Essex Co.	Aug. 14-18
Franklin Co.	Aug. 20-26
Genesee Co.	July 16-21
Genesee Valley Breeders	Sept. 1-2
Gouverneur	Aug. 6-11
Hemlock Lake	Aug. 14-18
Herkimer Co.	Aug. 15-18
Jefferson Co.	Aug. 20-25
Lewis Co.	Aug. 13-18
Monroe Co.	Aug. 20-25
Montgomery Co.	Aug. 29-Sept. 3
Nassau Co.	Oct. 12-21
New York State Exposition	Aug. 28-Sept. 3
Oneida Co.	July 30-Aug. 4
Ontario Co.	July 17-21
Orange Co.	Aug. 4-11
Oswego Co.	Aug. 7-11
Otsego Co.	July 31-Aug. 5
Palmyra-Union	Aug. 14-18
Rensselaer Co.	Aug. 30-Sept. 4
Agr. & Lib. Arts Society of Rensselaer Co.	Aug. 30-Sept. 4
St. Lawrence Co.	Aug. 6-11
Saratoga Co.	July 23-28
Schoharie Co.	Aug. 22-26
Seneca Co.	July 30-Aug. 4
Steuben Co.	Aug. 21-26
Tioga Co.	July 22-28
Tompkins Co.	Aug. 7-11
Trumansburg	July 10-14
Ulster Co.	Aug. 15-16
Wyoming Co.	Aug. 20-24
Yates Co.	July 11-15



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Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

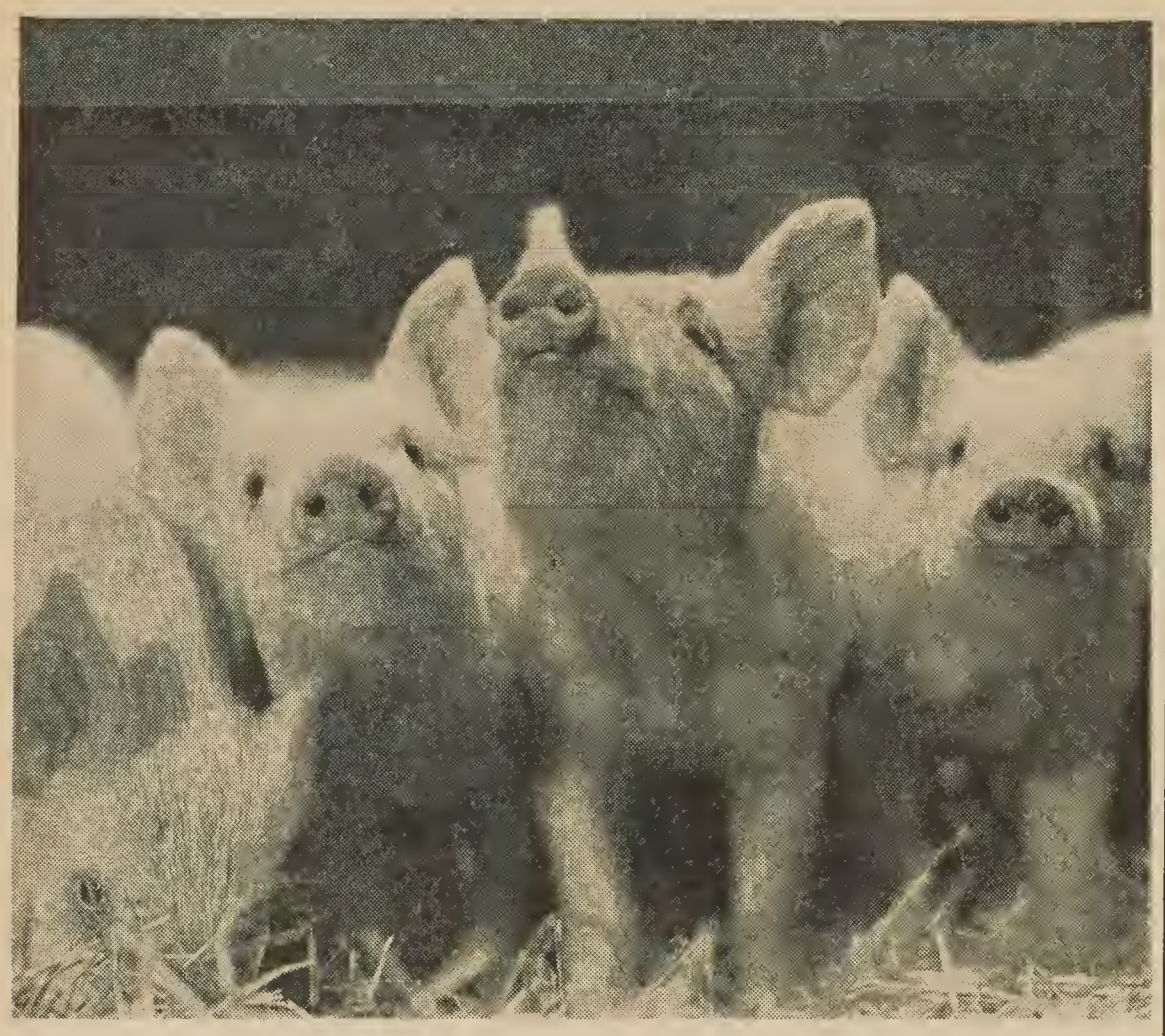
AM STATIONS

Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Remsen-Utica	WREM	1480 kc.
Canandaigua	WCGR	1550 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Sayre, Pa.	WATS	960 kc.
Elmira	WENY	1230 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Scranton, Pa.	WEJL	630 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Walton	WDLA	1270 kc.

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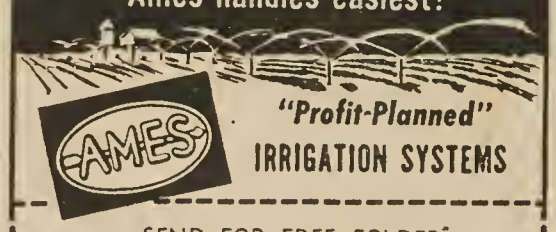
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Here are two satisfied customers! Note that posts for partitions slant forward to provide more clearance and prevent injuries.

More information on

Stalls in Loose Housing

By BILL IRISH*

FREE-CHOICE stalls in loose housing have commanded a lot of attention among Northeast dairymen lately. This report is based on visits with three New York farmers using this system, and contacts with agricultural engineers from New York, Wisconsin, Pennsylvania and Massachusetts.

Pro and Con

The free-stall resting barn reduces bedding requirements, spreads the work load for manure disposal, reduces disturbances among animals, and reduces building area needs. However, it requires some manual cleaning with hand tools, interior construction of stalls and alleys, mechanical scraping, some training of the animals, and usually some adjustment of sidewall openings.

Bedding requirements (sawdust or dry chopped hay) at the limited number of systems observed ranged from ¼ to ½ that used in conventional loose housing. Daily removal of manure, allowing easier scheduling of spring work, was reported as an advantage. About one hour per day is needed for scraping and spreading manure; the area to be scraped mechanically is slightly greater than with conventional loose housing.

The arrangement of the paved traffic alleys influences the time needed for this daily cleaning operation. Manual cleaning of stalls is a quick operation using a potato hook or rake. Cows are clean, although some stains were observed on feet and bellies. Some training of animals was needed, because younger and smaller cows may turn around in the stalls and face toward the traffic alley.

The building area can be reduced by 20%—from 60 square feet per animal in a conventional resting area to 48 square feet per animal (stall plus ½ of traffic alley). Interior construction of stalls and alleys will cost about $30 to $50 per cow, or nearly $1 per square foot of floor area; this is in addition to the cost of the building shell.

For economy of construction, the barn is built as an uninsulated shell and operated as a "cold" barn. If condensation is to be prevented, the inside surface temperatures must be within 10° F. of the outside air temperature. Openings in the south and east walls (at least two feet high and continuous) help natural ventilation; "high" ceilings also help reduce moisture problems. Other openings between rafters on sidewalls, and a continuous ridge ventilator with a 1½ inch slot, are suggested to provide air movement beneath the roof and help prevent frost or condensation on building materials. For summer ventilation, drop-down panels in the north and west walls are recommended.

Scraping daily with a heavy tractor and down pressure on a blade helps prevent solid freezing of manure and maintains reasonable cleanliness. To reduce freezing in the paved alleys, sidewall openings may be closed and some condensation tolerated for short periods of extreme cold.

The barn should be built with large clear-span areas so that interior arrangements can be changed. Two rows of stalls with a single paved alley are recommended for herds up to 40 cows. For herds between 40 and 120 cows, four rows of stalls with two paved alleys are recommended. Larger herds should be divided into separate units.

Space for bedding and machinery storage should be provided nearby. Equipment, both present and planned, determines the minimum width of all alleys—a traffic alley of concrete five inches thick and at least eight feet wide is usually adequate. With 20 to 30 cows in each row, no cross alleys are needed except at the ends of stall rows; these cross alleys should allow tractor and scraper to turn at corners. Traffic alleys should allow the use of a side unloading wagon for distributing bedding; turning this wagon is more practical in a yard than within a building.

A curb 6 inches wide and 10 inches high separates the paved alley from the bedded stall. A stall 4 feet wide (center to center of partitions) and

(Continued on Opposite Page)

*Agricultural Engineer, Cornell University

Here's Something New!



New Approach — This is the kind of automatic, coin-operated food store that may some day take the place of the neighborhood store—or be installed in some apartment houses. There are 36 service chutes, half of them refrigerated, the others to hold dry items.

What's Cookin'? — Chicken loaf, chicken bologna, and chickalona — all new chicken products developed at Cornell University and market-tested. Look for them at your supermarket.

Runnerless Strawberries — The University of New Hampshire's Horticulture Department is pioneering in the development of runnerless strawberries that can be grown directly from seeds. An advantage is that virus can thus be avoided and weed control is easier. The runnerless plants work well with plastic mulches.

The original seedling plant in this country, which came from seeds collected by H. A. Wallace when traveling in Greece, was brought from New Gloucester, Maine to Durham, New Hampshire by Professor Elwyn M. Meader. Called the "Macedonia" for convenience, the plant was crossed with several everbearing varieties, and the seedlings selected on the basis of runnerless character and high yield of good quality fruit.

Atomic Power — Atomic power stands on the threshold of becoming important in New York State. Electric power needs of farm, industry, and home have been steadily increasing—more than tripled since 1938.

So far, high capital investment required for atomic power plants has resulted in an average cost of 9 mils per kilowatt compared to 7.5 mils if produced from fuels such as gas, coal, or oil.

Consolidated Edison is putting $100,000,000 on the line as evidence of its belief in the future of atomic power. Its Indian Point reactor on the Hudson Valley will have a capacity of 275,000 kilowatts.

It won't be long before the atom will be moving bales, unloading silage, milking cows—and doing a hundred and one other jobs.

DATES TO REMEMBER

July 1—Eastern N. Y. Dairy Goat Club Show, 11 a.m. Schaghticoke Fair Grounds.

July 10-11 — Poultrymen's Get-Together, Riley-Robb Hall, Cornell University, Ithaca, N. Y.

July 25 — Massachusetts Beef Cattle Improvement Association Annual Meeting, University of Massachusetts, Amherst.

July 28 — Eastern New York Angus Field Day, Rally and Walbridge Farms, Millbrook, N. Y.

Aug. 5-8—Summer Session, American Institute of Cooperation, Ohio State University, Columbus.

Aug. 8 — Annual Science at Work Field Meeting, Connecticut Experiment Station, Mount Carmel.

EXTENSION DIRECTOR

EFFECTIVE July 1, Professor Alvin A. Johnson will become Director of Extension of the New York State Colleges of Agriculture and Home Economics, replacing Dr. Maurice Bond.

A native of Minnesota, Professor Johnson came to Cornell in 1946, and has been Extension project leader and acting head of the Department of Plant Breeding. His work with the production, marketing, distribution, and promotion of seed of new and superior crop varieties has resulted in New York farmers leading most other states in the use of high quality seed.


PROF. A. A. JOHNSON

Professor Johnson has also been active overseas — in Greece, India, and at a worldwide conference on crop and seed improvement problems in Rome, Italy, to which he was invited by the Food and Agriculture Organization of the United Nations.

LOOSE HOUSING

(Continued from Opposite Page)

7'3" long (7'9" with curb) will reduce manual cleaning operations and be cleaner than longer stalls.

Solid partitions prevent injuries which might occur with open partitions; build them so they won't interfere with the use of a side unloading wagon for bedding. A rear post for partitions may be fastened to the forward side of the curb and should be slanted forward to provide more clearance and prevent animal injuries. Because feeding in stalls increases cleaning problems and bedding use, there should be a separate feeding area.

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I WAS JUST FIGURING...

—by Cy Watkins



HOG FEED COSTS

The other day, I did some calculating for a friend of mine. I calculated out what a finished market-weight hog would cost following four different, but typical feed programs.

Total Feed Cost for 220 lb. Hog

Ration #1	**$29.12**
Ration #2	**$20.58**
Ration #3	**$18.35**
Ration #4	**$16.39**

If you look at those figures, it's clear that Ration #4 would allow you the best margin of profit, so let me tell you about it.

(I used some average figures when I calculated this out; $1.07 for corn, $6.50 for tankage, $5.90 for 35% commercial protein supplement and $1.10 for mineral.)

Ration #1 is corn and mineral. It takes about 26 bu. to take a hog from birth to market.

Ration #2 is corn, mineral and tankage. It takes about 14 bu. of corn and 85 lbs. of tankage.

Ration #3 is corn, mineral and an ordinary 35% commercial protein supplement. It takes about 11 bu. of corn and 110 lbs. of supplement.

Ration #4 is the Watkins Program based on the MIN-VITE fortified protein supplements and corn. With good management and breeding, it takes 9 to 10 bu. of corn and 65 to 75 lbs. of supplement, birth to market, for a total cost of about $16.39, or about $7.00 per hundred pounds of pork, total feed cost.

Here you see the big difference careful balance makes. Not just throwing in some mineral and protein . . . but careful balance of the major and trace minerals, balance of the amino acids **within** the protein, and by supplying the **vitamins** hogs need, along with three powerful antibiotics.

This is the story on the Watkins Pork Program . . . and to my friend who thought Watkins MIN-VITE cost too much, I say look at the facts! Which of those four typical rations **really** costs too much, and which costs the least! The facts show that careful balance, high fortification with Watkins MIN-VITE for Baby Pigs and Watkins MIN-VITE for Swine produce low cost pork . . . pork you can make money on.

Talk it over with your Watkins Dealer . . . next time he calls.

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Readers Tell Us!



FARM PROGRAM

Secretary Freeman has stated many times that the program which he is proposing will give a clear-cut choice to the farmer. Under the present conditions in agriculture, the continuation of programs which provide support prices without any limit on production have resulted in accumulation of vast quantities of wheat, feed grains and dairy products at enormous costs. If the farmer is to receive support prices, then the taxpayer should not be asked to continue to finance accumulation of additional quantities of farm commodities to be stored at higher and higher costs. On the other hand, if the farmer does not want support programs, then he should have the opportunity to make that decision.

What the Administration's bill proposes is that agriculture be given effective machinery to manage supply just as every other industry today manages the supply of products which are on the market. I am sure that every industry today has the capacity to produce substantially more than it makes available in the market. These are growing and efficient industries, yet they manage supply. For example, none of the automobile manufacturers produce all the cars they could. If they did, they would have to cut prices substantially in order to move them.

In considering program needs, most people seem to forget the current amount of wheat and feed grain on hand was not created overnight. There is no way it can be wished away. These commodities are here. They are costing millions of dollars a year to store and they are a factor which must be taken into account. — *Rodney E. Leonard, Assistant to the Secretary of Agriculture, Washington, D.C.*

DOWSING—NO!

Probably the best definitive study on dowsing in the country today is **Water Witching U.S.A.** by Evon Z. Vogt and Ray Hyman, published by the University of Chicago Press, 1959.

The authors point out that scientific evidence for the validity of water witching or "dowsing" is appallingly negative.

Why does the rod move? A sound explanation can be found in what science knows of neuromuscular behavior and ideomotor action. The psychologist and physiologist can explain why the dowser is **unaware** that his own muscles are initiating the rod's action.

Water witching involves intense concentration and the dowser experiences considerable tension and emotional drive. Under these conditions he is receptive to cues in the field which indicate the presence of water. However, he is not consciously aware of these cues (indicator plants on surface of the ground, springs, seeps, swamps, appearance of rocks on the surface, erosion, sedimentation, glaciation).

Vogt and Hyman conclude their book by saying that, although water witching is unscientific and is a form of magical divination, yet it can still be a psychologically defensible form of action.

The dowser "provides specific guidance, reduces the ambiguity of the situation, supplies emotional reassurance, and acts decisively in a moment of anxiety and concern." — *Mrs. Helen Breitbeck, Oswego, N. Y.*

DOWSING—YES!

A word of appreciation for the excellent article on dowsing by Norman B. Evans. Very few dowsers have Mr. Evans' ability to write competently about this generally neglected faculty.

As a footnote to the article, I'd like to add for the information of your readers that The American Society of Dowsers, Inc., a non-profit organization, has been formed to promote "serious evaluation of and interest in the talent and skill of dowsing, to make scientific inquiry as to its nature, to record its history and to associate together those with mutual interest in the phenomenon of dowsing in a companionable effort to discover the peculiar properties of the dowsing skill and to make it useful to the public at large."—*Donald M. Boyer, Riverton, Vermont*

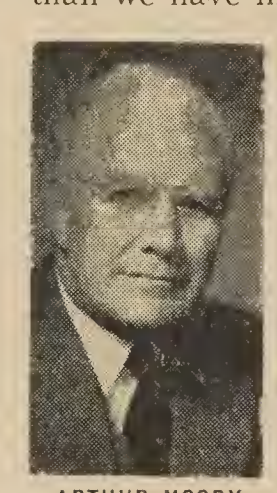
Country Pastor

Upgrade Loyalties

By Dr. Arthur Moody

DO WE take for granted our loyalties? Family ties should strengthen with the years. Old well-tested friendships become richer and firmer as time passes. Such loyalties are the basic dependence of life.

But there is a more basic loyalty than we have mentioned. "To thine own self be true, and it shall follow as the night the day, thou can'st not then be false to any man." "Loyal to the Royal" is a shorter form of quotation.

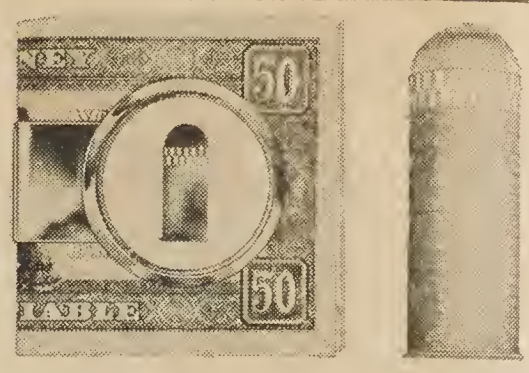


ARTHUR MOODY

Where are those pure ideals, strict standards, codes of conduct? What has happened to those fine personal relations — in private, business or professional and public life? Have they been up-graded or down-graded as the days pass?

A slump in morals is worse than one in the stock market. It can come with a small "slip," or a raveled fibre of the social fabric. A moth-eaten garment of right is a sad sight. You can't depend on it to cover your decency, let alone stand the rough rounds in the tussle with temptation.

And it's not the big rents in the fabric. It's the small, weakened areas of warp and woof of what otherwise had made a dependable character!

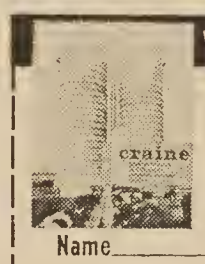


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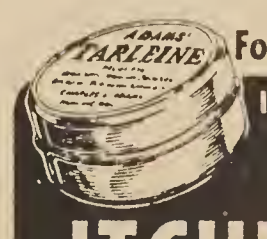
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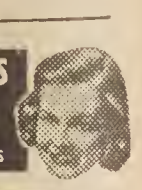
W. J. P., Indianapolis, "I have used TARLEINE and found that it is everything you claim it to be. It has cured my piles and I am so thankful to you for putting out such a remedy."

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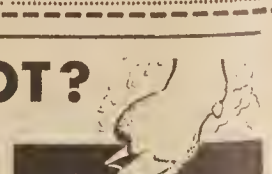
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Food and - - - Fallout!

(Continued from Page 1)

No, I believe common sense will win the day. Foods are being very carefully checked for radioactivity by very competent people; there's just no sense in changing diets because of scare headlines. If and when changes are called for, we can be sure the people I mentioned will inform us about them. Trying to tinker with our own diet to avoid danger from radioactivity is likely to do more harm than good. If you can buy food on the market, you can eat that food without worry about excessive radiation.

Why is milk the whipping boy of protest about nuclear testing?

Well, milk was selected as an indicator of fallout merely because of convenience. Sampling and testing are simple, and it's produced—and thus available for testing in practically all areas—the year around. Of course, milk is fed to babies and it's easy to generate quite a head of emotional steam on the subject.

Actually, milk should continue to be judged on the basis of nutrition rather than on fallout, leaving to those charged with that responsibility any pushing of the panic button —if conditions warrant.

It's desirable to have people work for peace, but it's dishonest to warp facts (about milk, for instance) in order to justify a stand against all nuclear testing. Milk **has** suffered from publicity about fallout contamination — unjustifiably. Remember that all foods are contaminated with strontium 90, not only milk.

Strangely enough, even though milk **is** the largest single source of strontium 90 in the diet, reducing milk intake actually tends to **increase** the body burden of strontium. I won't go into the complicated chemistry, but merely comment that switching the diet from milk to other things may **step up** strontium 90 levels in the body. By the way, when our three children are all home we put away a lot of milk per week.

What suggestions do you have for farm people in the event of nuclear war?

That's a subject all by itself and I'd rather confine my remarks to nuclear weapon testing and peaceful uses of nuclear energy. Of course, considerable planning **is** being done to safeguard both rural and urban people—and their food supply—in case of all-out war.

Don't you sometimes wish we could go back to days before we had to worry abut fallout?

No. A certain amount of genetic danger is involved in **any** use of nuclear energy, of course, but the gains far outweigh the losses. No new development is without its disadvantages—atomic energy is no exception. It's a question of weighing the pluses against the minuses and making a decision. For instance, in this country we kill about 40,000 people a year on the highways — a biological cost we accept for transportation. I don't say this to justify any unnecessary additions to human suffering, but to emphasize the facts of life, and to point out that we don't have personal anxiety about this level of biological cost.

Even the controlled peaceful uses of atomic energy will produce some radiation hazard, but this cost is far outweighed by benefits to mankind. So it has been with the use of fire, electricity, transportation, and medical practice.

Dr. Comar, do you have a bomb shelter for your family?

No—we've thought about it, but that's as far as we've gone.

What is our task as a nation in connection with the "awesome atom"?

Well, history seems to say that nations sink into obscurity either because of an unsuccessful bid for supremacy—or because their citizens seek an easy life. We seem to have our share of people in the latter category.

If we try hard enough, we can do whatever it takes to remain strong, avoid nuclear war, and fulfill the responsibilities of world leadership. Nothing easy about it, but it's possible!

A FARM IS A BUSINESS

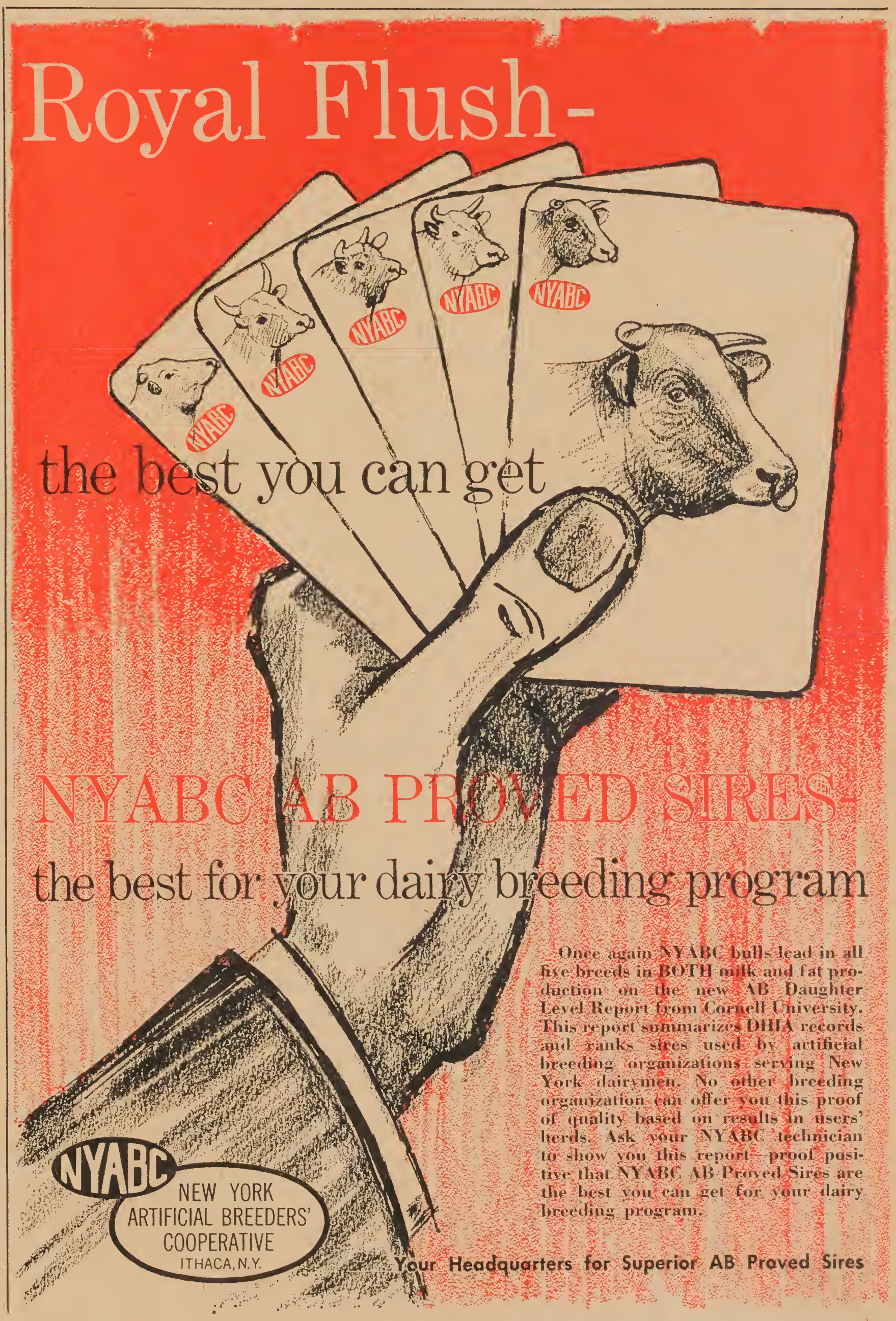
(Continued from Page 8)

how much the chain wants. One store has a quality control man who stops in at the farm nearly every day—but very rarely is any produce refused. Sales are also made to a broker who sells to independent stores, roadside stands, and hotels. "Buyers have been fair," said Bob, "and we have no complaints."

Produce is delivered to the buyer and, to preserve quality, the corporation owns two refrigerated trailer trucks. Incidentally, there are eleven tractors on the place, each equipped for one job.

Members of the Worth family find no time for pessimism. They admit that farming has its problems, but they meet them by good management decisions based on accurate records. The three boys are married, and Grandma and Grandpa can boast of eight wonderful grandchildren.

With the corporation to provide a stable business setup, I am confident that there will be Worths—and vegetables—on this farm for many years to come.



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PUBLISHING AND CLOSING DATES

August Issue Closes July 5
September Issue Closes August 5
October Issue Closes Sept. 5
November Issue Closes Oct. 5

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GOOD QUALITY grade Alpines. Reasonable. Dale Whitehead, Arkport, New York.

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BLUE PEAFOWL, peacocks, peahens. All ages available, state age wanted, prices quoted on request. Treeland Farms, Hudson, N. Y.

PEACOCKS — PEAHENS, blue, white, black shouldered varieties. 1961 pair $30.00; 1960 pair $45.00; 1959 pair $60.00. A. H. Chambers, Maple Lane Farm, Kingston, New York.

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STARTED CAPONS, four to six weeks old and past the danger age. Grand champions, 1962 Pennsylvania Farm Show. These white-feathered surgical capons add weight fast on less feed than you can imagine. Outstanding market finish. Direct delivery on our own trucks over a wide area. Free folder. Sunnybrook Poultry Farms, Box 106, RD 2, Hudson, N. Y Ph: TA 8-1611.

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LEARN Auctioneering, term soon. Free catalog. Reisch Auction School, Mason City 11, Iowa.

AUCTION SCHOOL, Ft. Smith, Ark. Free catalog. Also home study course.

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FIRST-SECOND CUTTING alfalfa, Timothy, Wheat straw. Mulch hay, Oats, Ear corn. Phone HO-9-2885. James Kelly, 137 E. Seneca Tpke., Syracuse, N. Y.

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LARGE DAIRY FARM needs experienced men for milking cows. Excellent housing and boarding house on premises. Steady work, top wages and bonus for right men. Call Mr. Bernon, Garelick Bros. Farms, Inc., Franklin, Mass. 528-9000 days or Woonsocket, R.I. POplar 9-7996 after 6:00 P.M. or Mr. Harvey Baskin at Franklin, Mass. 528-2276.

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AYRSHIRE AUCTION

Meredith Invitational Sale

73 HEAD of "The Breed's Best"!

SAT., AUG. 4th. Topsfield, Mass.

3 SCOTCH BRED HEIFERS—Dams' recs. avg. 12,596 M 4.1% 517F. 11 'BETTY'S' sired by NYABC's "Miracle Bull" whose 43 daus. avg.: 12,279 M 4.06% 499 F. Dams of this group avg.: 13000 M. 31 BRED HEIFERS—12 from Meredith—19 Consigned). 16 are from dams with over 500 F. Top dam has 16,060 M 4.0% 649 F at 9 yrs. 21 COWS— (12 from Meredith—9 Consigned). They're young. Four have over 500 F. Top dam of the 1st-calf heifers has 752 F.

*** 45 Fresh or Due Within 30 Days ***

7 MEREDITH BULLS—Young calves to service age. Dams have up to 17,881 M 4.4% 781 F. at 9 yrs.

*** *All Records Actual 2x-305 day lactations* ***

HEALTH: T.B. Accred., Bangs Certified, Calf. Vac., and tested within 30 days. Eligible for any state.

Plan to be at Meredith on Aug. 3rd for the NEW ENGLAND PRODUCTION FIELD DAY.

— *For Free Catalog Write* —

TOM WHITTAKER, *Sale Mgr.* Brandon, Vt.

AYRSHIRE DISPERSAL

Est. of CHESTER B. SKIFF, Greenwich, N. Y.

MONDAY, JULY 23, 1962 at 10:30 A.M.

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180 HEAD — Top Cattle!

DHI Avg. 11,354 M 3.9% 439 F. for 80 Cows. Top cow recently milked 85 lbs., several over 70 lbs., many are making over 500 lbs. Fat under very practical management.

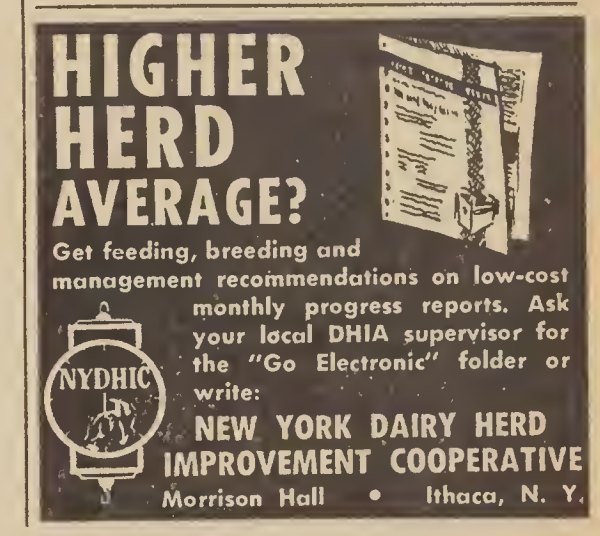
80 COWS — 46 BRED HEIFERS — 18 YEARLINGS — 30 HEIFER CALVES — 6 BULLS

The herd includes 27 Polled animals. All others are dehorned. There are 20 daughters of Meredith Prediction, 19 daughters of NYABC's 'Miracle Bull', Selwood Betty's Commander, 39 are bred to 'Betty'. This will be a very good sale at which to buy cattle of any age.

HEALTH: T.B. Accred., Bangs Certified, Calfhood Vaccinated, T.B. and Bloodtested within 30 days, inoculated against Shipping Fever, and the Bred Females are Pregnancy Checked.

FOR CATALOG WRITE

TOM WHITTAKER, Sale Mgr., Brandon, Vt.



Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

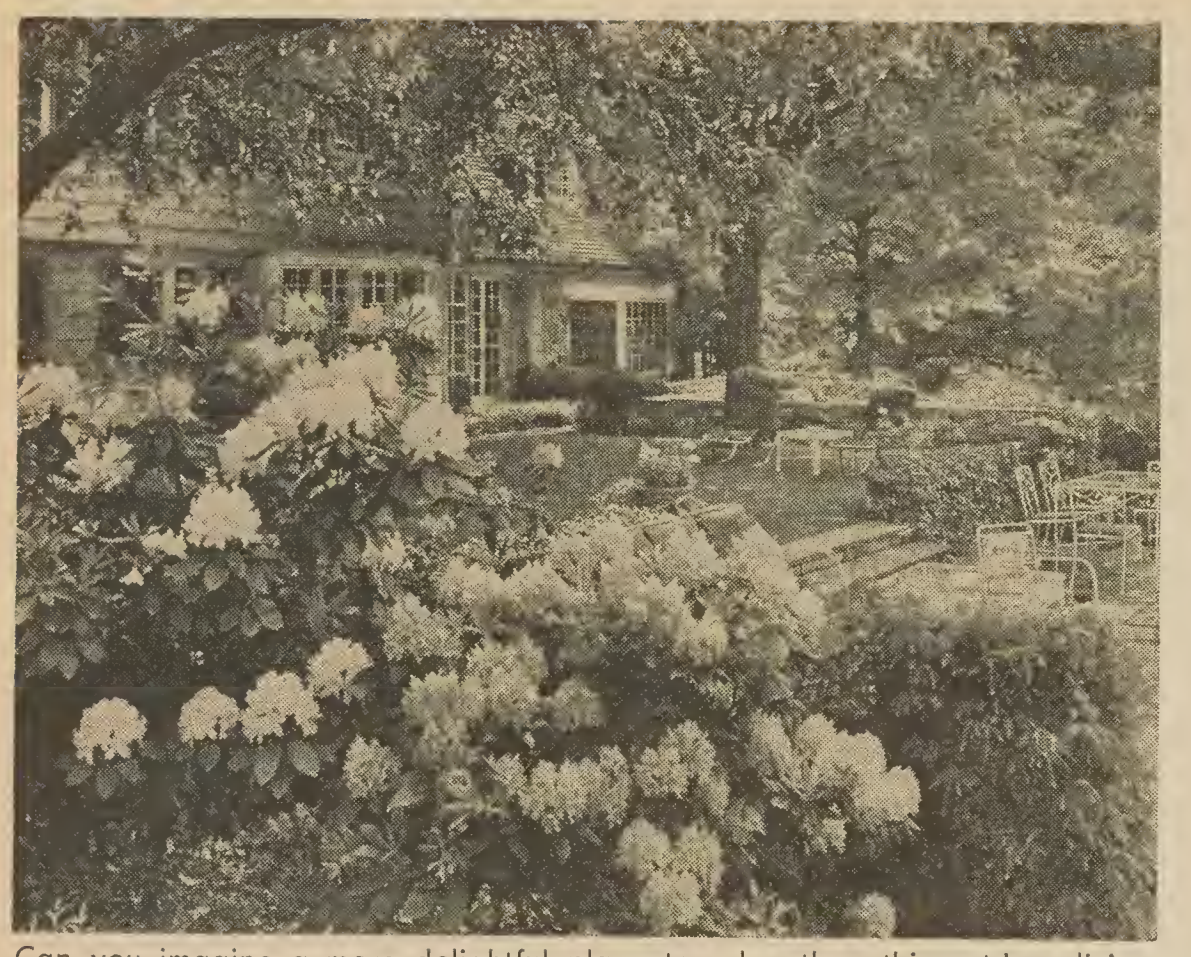
New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In ease after ease, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in *suppository* or *ointment form* under the name *Preparation H®*. At all drug counters.



Can you imagine a more delightful place to relax than this outdoor living room? The lovely trees, shrubs, and flowers make the entire area a joy to behold—from the patio itself and from inside the house as well.

PATIOS *for* Outdoor Living

By

Nenetzin R. White

WE USED to sit on porches, then terraces, and now on patios. Progress is wonderful, and today's patio is an enlarged, landscaped terrace, or outdoor living and dining area. When Phil and I were first married and started the renovation of our old house (does one ever finish?), we laid out a "large" terrace. Today it looks like a postage stamp, so we will probably start enlarging it soon.

A delightful older visitor of ours had this comment to make, "We used to eat in the house and go to the bathroom outdoors when I was a boy, but things are sure different today. Now, people go to the bathroom in the house and eat outdoors!"

We do spend more time outside, and a patio increases living space tremendously. It is usually placed near the house, readily available for sunning or eating, and this is a good place for an outdoor fireplace or grill. I am particularly fond of a grill with wheels, because it can be moved to different spots as the wind changes. And who wants to smell like a smoked hamburger?

A patio can be constructed from various materials, but flagstone, in my opinion, is the loveliest of all. You can do the work yourself, or hire a landscaper or contractor. Regardless of who builds the patio, however, there are some very important construction details that must be followed.

The first step is to select a reasonably level site. If you plan a split level terrace, be sure the area is large enough for it to look well. Also, plan on a wall or good solid bank between the levels. Put out stakes to outline the area to be paved, and start digging for the forms. These are usually 2 x 4's, treated with a wood preservative, and nailed to long, firm corner stakes. The top of these will be your terrace level, so see that they are flush with the surrounding area. These forms can be left in the ground or taken out and back filled firmly. The patio should, of course, drain away from your house, and a drop or fall of one inch to each ten feet of surface is good. Try to use a professional level, or, if one is not available, a firm board that you are sure is even and straight.

After the forms are finished, continue to excavate the area as shown in cross section. Then fill the area with the proper amount of gravel and sand. The depth will be regulated by your soil and normal drainage. In heavy soil with poor drainage, use six inches of gravel and four of sand; in lighter soils with better drainage, four inches of gravel and two of sand will be sufficient. If the sand is not moist, it must be wet down. After this the level should be down the approximate depth of your terrace material. Keep extra wet sand on hand to bring patio up to level of forms.

Level Each Block

Now you are ready to start placing your terrace blocks. Each one must be firmed and leveled individually so it will not rock, and spaced according to your desires. On flagstone or cement squares, you should "break" the joints; that is, never have a continuous line of joints. The joints of your terrace can now be filled with moist sand or concrete. Bear in mind the kind of traffic you expect, for today's narrow high heels will catch in sand-filled joints.

Of the many available materials, I think patterned flagstone is the best and easiest to work with, but it is normally more expensive than other materials. This is cut in six-inch intervals, such as 12 x 12, 12 x 18, 18 x 24, etc., and by allowing an inch between joints you can plan and lay your patio in record time. Broken flagstone is less expensive and, with a little more work, results in a lovely finished product. Use large pieces for a large terrace and smaller ones for a small patio. These can be cut to fit, but count on a little waste.

Concrete blocks make a suitable terrace and can often be purchased in colors. Try to use soft muted tones, avoiding the harsh colors. Vitrified brick (hard fired brick) is a wonderful material that lends itself to many delightful patterns. If you use this, the joints should be much narrower.

Wood is a material that many of us have free. Use any good hardwood, and cut into blocks thicker than flagstone. But, lovelier and more unusual are slices of tree trunk. With a chain saw these are no problem, and you can use limb slices to fill in. When using wood, be sure to treat it with a clear or dark preservative. Avoid the green preservatives, for they are "spotty."

Many people like grass patios, and as you can see from our picture, they are indeed beautiful. They require top maintenance, as they must be fed, watered, and cut on a precision schedule. The drawback is that some furniture and most high heels will puncture the grass. These grass patios are cool, restful, and altogether delightful. Do not expect good results, however, if your traffic is heavy. With ideal conditions the top lawn grasses for these are the blue grasses; secondly, for poorer soils, shade, etc., fescue mixtures should be used.

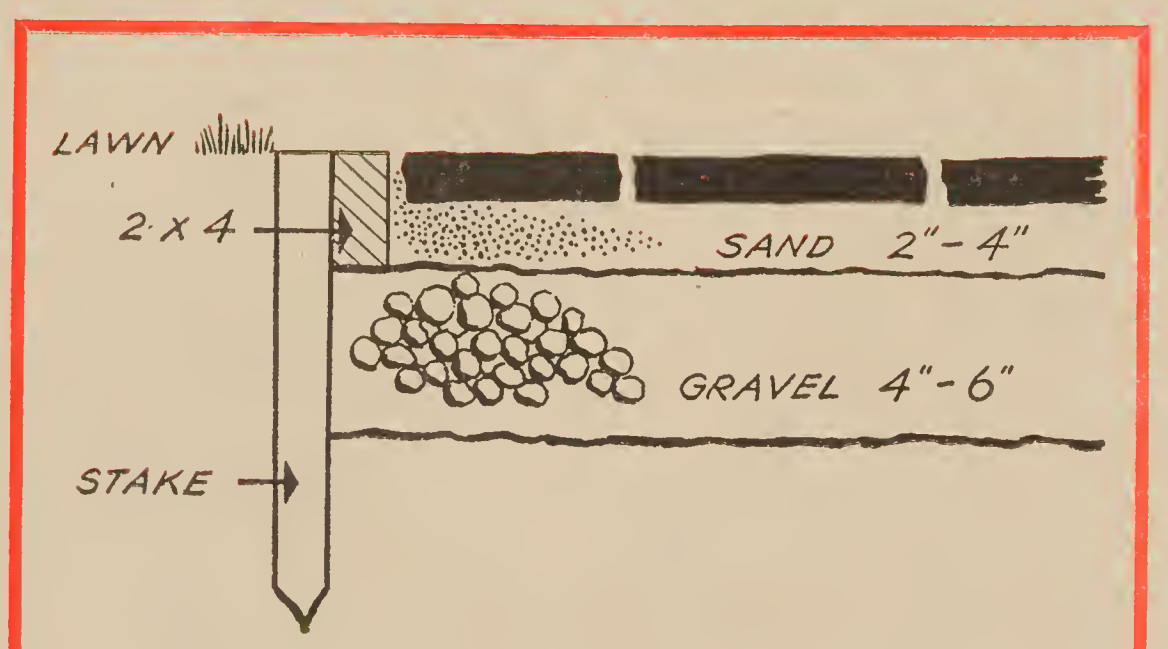
Plantings Needed

As you sit back and admire your finished patio, you will notice a "raw" look. Here is where a few well-placed plants will make the terrace a part of your house and grounds; in fact it ties them together. A hedge is often used to tie a terrace into the landscape. Break this where you want traffic to flow. An evergreen hedge is best, and I think the loveliest of the evergreens for this are Taxus or Yews.

The corners should be softened by group plantings of evergreens or deciduous materials. This, to me, is the spot to use some delightful small ornamental trees, such as dogwoods, magnolias, or redbuds. Group around these some fragrant shrubs—mock orange, French lilacs, vibernums (the fragrant ones), shrub roses, or whatever you like. You will like the fragrance near your house.

If your exposure is north, you could do some beautiful group plantings of rhododendrons or azaleas, as in the illustration. Most of the Northeast can grow rhododendrons or azaleas, but in some areas (such as Ithaca in Central New York), you are limited to certain hardy varieties. Consult a recognized nurseryman to see what is best suited for your area.

Now, sit down and enjoy a meal on your patio—or a glass of iced tea with mint from your herb garden.



Cross section of patio, showing 2x4 anchored to corner stake, layers of gravel and sand, and terrace blocks placed at lawn level.

IT'S PICNIC TIME!

By Alberta D. Shackelton

PICNIC is the magic word of summertime. Any meal, breakfast, lunch, or dinner, served out-of-doors always seems to taste so much better. Take your choice of having it on your porch or patio, or in a shady spot on the lawn. Bring out your complete meal of kitchen-made foods, or just the foods to go along with the part to be cooked on the outdoor grill. And some day pack a hamper lunch to take to the beach or park, or for a day exploring nearby cool, green woods.

Whatever kind and wherever your picnic, don't forget that nutrition is as important for an outdoor meal as for the one served indoors. Think of it along with the other two meals of the day, so your family will have all the required foods. Keep menus simple, not more than three or four prepared dishes, but have plenty of each. Select the main dish first and then the vegetables, salad, dessert, a beverage, and milk for the children.

Using whatever vegetables are in season, a relish tray can serve as appetizer, salad, or the vegetable for your picnic. A platter of fruit relishes may also serve as salad or dessert.

Happy picnicking to you!

"Serve Yourself" Picnic Platters

On a large, oblong foil-covered tray, arrange crisp salad greens. In the center of the tray place Petal Potato Salad (see recipe below) molded in a ring mold with dish of mayonnaise in center of mold. On 2 opposite corners, arrange attractively various cold cuts in roll or cornucopia form. On other corners, place tomato wedges, cucumber spears, green pepper rings, and scatter green and black olives and radish roses over the tray.

On a second tray, foil covered, place a round loaf of one of the dark breads like pumpernickel or dark rye bread sliced, and dishes of mustard, relish, salt and pepper. On a third foil-covered tray, arrange wedges, slices or halves of the fruits of the season and Butterscotch Brownies. Have handy a pitcher of fruit punch, a pitcher of milk, and plenty of coffee, then invite family and friends to help themselves.

PETAL POTATO SALAD

6 cups diced cooked potatoes
Salt and pepper
1 to 2 cups diced celery
4 hard cooked eggs, coarsely chopped
¼ cup chopped onions
½ cup chopped stuffed olives
About 1 cup mayonnaise
About ½ cup salad dressing

Place potatoes in bowl and sprinkle with salt and pepper. Add the other ingredients and toss lightly with mayonnaise and salad dressing, using just enough to hold the salad together. Pack the salad in a 1½ quart ring mold lightly oiled with salad oil, and chill several hours. At serving time, turn mold out onto center of tray and arrange bologna slices petal fashion over top of mold. Serves 6 to 8.

Kitchen-Made Picnic

For a "Kitchen-Made Picnic," serve Boston Baked Beans with ham, scalloped tomatoes with celery, Golden Salad, baked Boston brown bread, watermelon, beverages.

BOSTON BAKED BEANS

1 quart small pea beans
¾ pound salt pork
¾ cup sugar
1 tablespoon salt
½ cup molasses
Boiling water
2 cups ground cooked smoked ham

Wash beans, cover with cold water, and let soak over night. Drain, cover with water, simmer until skin bursts, and drain. Scald pork, remove ¼ inch slice and place in bottom of bean pot. Cut ½ inch gashes ½ inch apart through rind of remaining piece of pork, and bury it in the beans with rind exposed.

Mix sugar, salt, and molasses with 1 cup boiling water and pour over beans. Add enough more boiling water to cover beans. Cover pot and bake in a slow oven (250°) 6 to 8 hours.

Make these the day before and reheat, freezing any that are left. About 1 to 2 hours before beans are done, lift rind carefully and mix in the ground ham. For the last half hour of cooking, uncover pot to allow pork to brown. Serves about 20.

GOLDEN SALAD

2 envelopes unflavored gelatine
½ cup sugar
½ teaspoon salt
1½ cups pineapple juice
½ cup orange juice
½ cup vinegar
1 medium sized can crushed pineapple, well drained
½ cup Mandarin orange sections, well drained
1½ cups coarsely ground carrots

Combine gelatine, sugar, and salt. Add pineapple juice and stir over low heat until gelatine is dissolved. Remove from heat and stir in orange juice and vinegar. Chill to consistency of unbeaten egg white. Fold in drained pineapple, oranges, and carrots. Turn into a 1½ quart ring mold lightly oiled with salad oil, and chill until firm. Unmold on crisp greens and serve with favorite salad dressing. Serves 12.

Grilled Picnics

For a "Grilled Picnic," serve barbecued chicken, barbecued hamburgers, or Kabobs, with Grilled Potatoes, Foil Cooked Summer Vegetables, Hot Herbed Bread, Fruit Salad and beverages.

KABOBS
(Cornell style)

2½ pounds lean tender meat (beef, lamb, liver, ham, or poultry meat), cut in 1 to 1½ inch cubes
2 pounds small or quartered onions
1 to 2 pounds mushrooms
Marinating and basting sauce

Marinate meat, onions, and mushrooms 1 hour in a mixture of ½ cup melted butter, ¼ cup lemon juice (fresh, frozen, or canned), ½ teaspoon salt, ¼ teaspoon pepper, 1 clove garlic crushed or garlic salt (garlic optional). Alternate meat, onions, and mushrooms on long skewers and broil over coals. Turn on all sides to cook, basting with sauce. Cook until done — about 20 minutes. Thirds of bacon slices, wedges of tomatoes, and green pepper pieces may also be alternated with the above foods on the skewer. Serves about 10.



—Photo: Alcoa Wrap

Another cookout suggestion—spareribs steamed in heavy duty foil until done, then brushed frequently with zesty barbecue sauce and browned. Baked beans, rolls heated in foil wrappers, cole slaw, and individual fruit cups complete the menu.

GRILLED POTATOES

10 medium potatoes
¼ cup melted butter
Salt

Scrub but do not pare potatoes. Cut in thin slices. Put each potato together shingle fashion. Brush cut surfaces with melted butter. Sprinkle with salt and wrap tightly in heavy foil. Bake over coals about 15 to 20 minutes. Test for doneness by pricking with fork or squeezing with fingers.

FOIL COOKED SUMMER VEGETABLES

Arrange individual portions of zucchini slices and yellow summer squash slices, thinly sliced onions, tomato wedges, and mushrooms on squares of heavy duty foil. Sprinkle with salt and pepper and dot with butter. Bring foil up over food and seal tightly. Place over grate near fire and grill 15-20 minutes, turning once or twice.

HERBED HOT BREAD

Cut a long loaf of French or Italian Bread diagonally into thick slices, almost through to bottom crust. Spread herbed butter between slices. Wrap loaf tightly in foil and place on grill over hot coals. Turn frequently and heat for about 20 minutes. For herbed butter combine ½ cup soft butter, dash salt, pepper, paprika, and about ½ teaspoon of your favorite dried herb mixture. Or, use 3 tablespoons of chopped onions or chives in place of herbs. Garlic salt and a little chopped parsley may be added, if desired.

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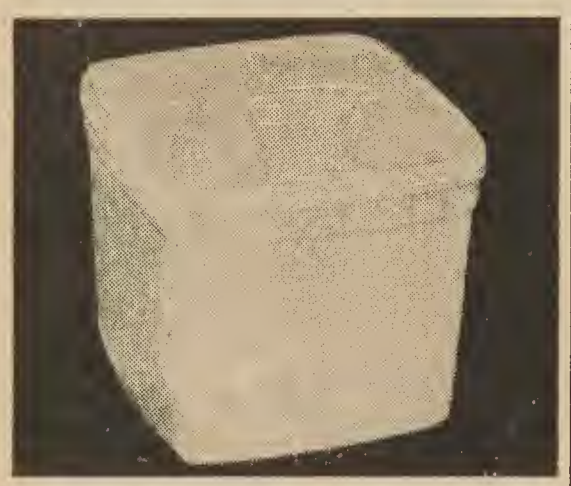
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Rip Van Winkle Couldn't Sleep with Nagging Backache

Now! You can get the fast relief you need from nagging backache, headache and muscular aches and pains that often cause restless nights and miserable tired-out feelings. When these discomforts come on with over-exertion or stress and strain—you want relief—want it fast! Another disturbance may be mild bladder irritation following wrong food and drink—often setting up a restless uncomfortable feeling.

For quick relief get Doan's Pills. They work fast in 3 separate ways: 1. by speedy pain-relieving action to ease torment of nagging backache, headaches, muscular aches and pains. 2. by their soothing effect on bladder irritation. 3. by their mild diuretic action tending to increase output of the 15 miles of kidney tubes.

Find out how quickly this 3-way medicine goes to work. Enjoy a good night's sleep and the same happy relief millions have for over 60 years. For convenience, buy the large size. Get Doan's Pills today!

School Fashions

By Helen Powell Smith

NOW is the time to plan for and make those clothes for the first fall school day. Order your patterns early so that you can take advantage of rainy summer days and be a jump ahead. The children will be handy for occasional fittings too.

Children's wear fabrics today are amusing, pretty, and practical. Look in your favorite fabric shops or mail order catalogs and see the lightweight to heavy wash-wear cottons and blends. There are sturdy Scandinavian patterned goods, corduroys and velveteens. Border prints are popular for the simple gathered or pleated skirts.

Jumper dresses are popular and smart. Made in a dark winter cotton with a variety of blouses to freshen their appearance daily, they help cut down on the laundry problem.

Crisp fabrics for pleated skirts may fall from the lowered waistline. Semi-fitted bodices are young looking and make the fitting simple. Dresses are "easy" in fit and design but have a studied casualness and are not careless looking.

Flare and swing appeal to young people and this fall's fashions are for them! Capelets add to this movement, and bloused bodices are flattering. Ensembles and suits are important with their short straight jackets or those which fit slightly and subtly. There are many two-piece dresses with a variety in overblouse designs. The middy-type of overblouse is charming with a pleated skirt. For variation, you may prefer to make it sleeveless so that your young miss may wear a white blouse under it and give it a crisp effect. Sleeves are often elbow or ¾ length for the schoolage girl. It is just as important to buy the right size pattern for a girl as it is for an adult. Choose your pattern by bust and hip measurements, rather than age.

WHISTLING BOY

By Eleanor Alletta Chaffee

The dust scuffed soft between his toes,
And in the evening twilight rose
A tuneless song, a careless air
That made wood-creatures stop to stare.
Nothing in all the world was free
As this boy, none gay as he
Stick in hand, dog following after,
Tongue hung loose in lieu of laughter.

I watched them mount and pass the hill;
They left behind a space grown still.
In the dusk small wood-folk stirred,
And a plaintive, lonely bird
Spoke one syllable, no more.
So the evening closed its door
Quietly. The air grew colder;
Tomorrow would see a boy grown older
Than the one who with his rhythm
Took the last of daylight with him.

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The Clothes LINE



9271. A warm-weather delight with scoop neck, paneled skirt. Pretty in soft silk, airy cotton. Printed Pattern in Half Sizes 12½. 14½, 16½, 18½, 20½, 22½. 35 cents.

4556. Princess sundress becomes a neat travel outfit when you add the jacket. Slubbed cotton, shantung, linen are suggested fabrics. Printed Pattern in Half Sizes 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

9366. It's the new "Jump Suit" for sun, sports, daily exercising. Sew it in denim. seersucker, a cotton blend. Printed Pattern in Misses' sizes 10. 12, 14, 16, 18. 35 cents.



4862. Low-cut back for our newest sundress, cape collar to button on. Airy cotton for this outfit. Printed Pattern in Misses' Sizes 12, 14, 16, 18, 20. 35 cents.

4920. Waist-curved jacket and flared-out skirt to sew in shantung, broadcloth, pique, linen. Printed Pattern in Misses' Sizes 10, 12, 14, 16, 18, 20. 35 cents.

9215. Cool-cut blouses for summer skirts, sportswear. Gay cottons for these. Printed Pattern in Half Sizes 12½, 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

Patterns are THIRTY-FIVE CENTS each. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Department, Box 42, Old Chelsea Station, New York 11, N. Y. Please write name, address, pattern size and numbers clearly. Send 35c for our current Catalog of Printed Patterns; it's brimming over with smart styles to sew.

REUNION TOUR

to Bermuda and Nassau

October 17-27

THE last AMERICAN AGRICULTURIST tour for 1962 will be our Reunion Cruise to Bermuda and Nassau. On October 19, a happy party of AMERICAN AGRICULTURIST tourists will board our cruise liner, the Queen of Bermuda, and be on their way southward to the enchanting island of Bermuda and the colorful port of Nassau. If you've ever traveled with AMERICAN AGRICULTURIST before, you will be especially interested in this delightful cruise, for on it you will again meet friends you made on your trip to Alaska or Hawaii; to California, Europe, or Mexico.

If you have never gone on one of our tours, we cordially invite you to come along and find out what a wonderful experience it is to travel with AMERICAN AGRICULTURIST. You will be amazed at the perfection of the arrangements! You'll have no travel worries at all, for every detail has been planned by our official tour agents, the Travel Service Bureau of Needham, Massachusetts. All you have to do is enjoy yourself with the wonderful group you'll find aboard ship.

Here are some of the highlights of our Reunion Tour:

October 17 — A get-together banquet at the Sheraton Atlantic Hotel in New York City. Here you'll meet old friends and have an opportunity to make many new ones.

October 18 — Sightseeing in New York, which will include the Empire State Building, the United Nations, Riverside Church, Cathedral of St. John the Divine, Fifth Avenue, St. Patrick's, Chinatown, Wall Street, Greenwich Village, and a boat ride to the Statue of Liberty.

October 19 and 20 — A chance for last-minute shopping before boarding the Queen of Bermuda on the afternoon of October 19. The next day and a half will be spent cruising southward on this beautiful ship, which has been recently returned to service after a four and a half million dollar refitting. It is completely air conditioned and has one of the largest swimming pools afloat. You'll have all sorts of activities to choose from—or, if you prefer, you may just relax in your steamer chair and sunbathe or chat with old and new friends.

October 21 and 22 —Ashore on the magic island of Bermuda! Here we'll visit Leamington and the Crystal Caves, the Aquarium Perfume Factory, the Devil's Hole, and the quaint old town of St. George.

October 23—Another day of leisure — just cruising and enjoying the luxury life!

October 24 — A day you'll always remember, whether or not it's your first visit to Nassau, for this city has a never-ending charm. You'll love shopping in the wonderful stores on Bay Street. and our sightseeing cars will take us to ancient forts, the Queen's Staircase, Government House, the native market, and to Ardastra Gardens to see the famous Flamingo Parade. We'll sail at dinnertime and reluctantly begin our trip homeward.

October 25 and 26—Two more days of luxurious shipboard life with a special gala evening for the last night of our cruise.

October 27 We arrive in New York this morning and board our "Reunion Special" for home, finding it hard to believe that ten days have passed since our get-together dinner.

We urge you to write today for a copy of the printed itinerary and to make an early reservation for our Reunion Cruise. A deposit of $100 per person will hold the reservation for you, and the deposit will be refunded if you have to cancel later.

Just fill out the coupon below, and complete information about the cost of the tour (it's very, very reasonable) will be rushed to you at once. It's always fun to travel with AMERICAN AGRICULTURIST, and we hope you will plan now to go with us to Bermuda and Nassau in October.

Mr. E. R. Eastman, President
American Agriculturist
Box 367-R
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Please send me without obligation on my part a free copy of your Reunion Cruise itinerary,

October 17-27, 1962.

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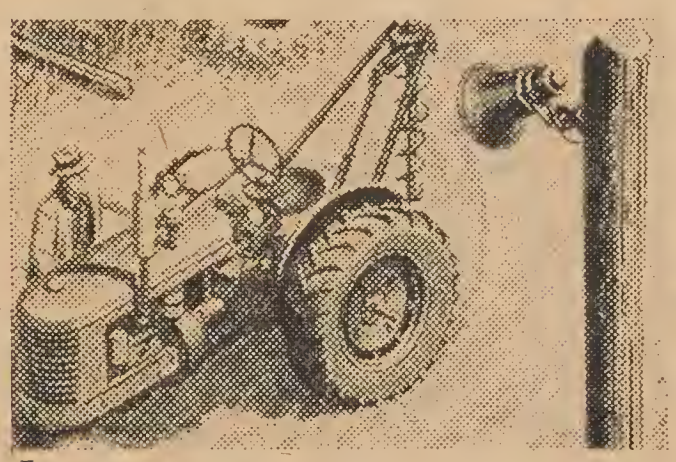
Four Ways the New Farm Interphone Can Save You Hours a Day



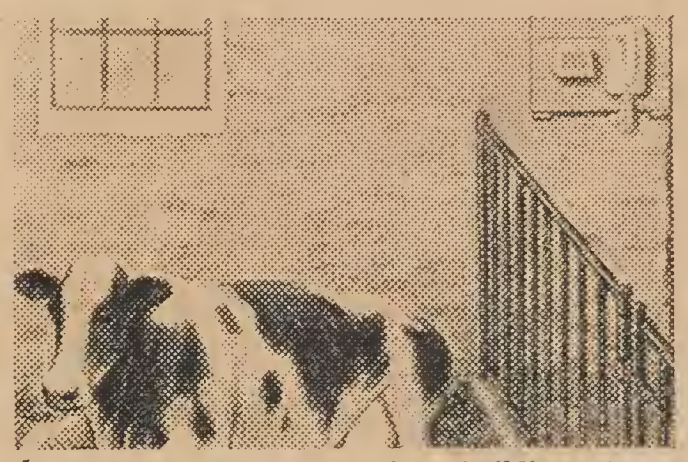
1. Saves trips between house and farm buildings. Suppose your wife has an outside call and something comes up she needs to discuss. She can "hold" the call, talk to you on the intercom circuit, then complete the outside conversation. Or you can take over the call in the barn, if you wish.



2. Lets you talk "hands-free" right where you are. If your wife calls you on the intercom, you can answer without picking up the phone, without interrupting your work. This is a very helpful feature around the farm. Or if you want privacy, pick up the phone and talk directly to her.



3. Helps you hear that ring. You can hear the telephone ringing over the outside speaker. When your wife answers and calls you on the intercom circuit, you can talk to her over the outside speaker. She can relay your message to the caller.



4. Acts as an "ear" in your farm buildings. Each Interphone station is an alert "ear" that listens for disturbances around the barnyard. All sounds are transmitted to the house. Your prompt attention may save animal life or property damage.

You can't possibly cover all the ground in a day that you can cover with new Farm Interphone—in minutes! Farm Interphone ties your whole farming operation together. It's a completely new system that gives you regular telephone service, and intercom service to and from strategically located points around your farm.

With Farm Interphone you can talk and hear over a wide area without taking a step or interrupting your work. Your wife can handle calls and talk with you without running to the farm buildings.

To learn how the new Farm Interphone can save you time (and money, too), get in touch with your telephone business office.

New York Telephone
Part of the nationwide Bell Telephone System



Ed Eastman's Page

HAYING THEN AND NOW

JUST before I wrote this, I leafed over a 1962 catalog of a large farm equipment manufacturer. As I looked at all the fine new equipment, I thought that my father, who was a farmer and who died in 1908, would have recognized few of the machines, to say nothing of being able to operate them. That's how fast the farm equipment business and farming itself have traveled in fifty years.

Compare just the haying machinery used then and now. Who ever swings a scythe these days? As a boy, I did it for days at a time. We had a five-foot cutter-bar mowing machine, a one-horse rake, a lumber wagon with a hay rigging, and a hay loader, although most of the time we pitched the hay on and off by hand.

I don't know about the hereafter, but there's no hotter place on earth than the west side of a hay shed on a July afternoon pitching off a load of hay. Oh, yes, there was one hotter; that was up near the roof in that shed mowing the hay away by hand.

Now let's look at today's equipment. In the first place, there is the tractor, without which the other modern equipment would not be practical; there is the power-drawn mowing machine, the hay crusher for quick drying, the baler, the loader, the unloader, and the barn dryer.

Or, if the farmer makes grass silage, there is power-drawn equipment to cut and blow the chopped grass into the wagon, with its high sides, and for blowing it into the silo—without touching it once by hand.

Just as there have been these tremendous changes in my lifetime, so will they continue so fast that it will be difficult to keep up with them. They will be as different in years hence as they are now from what they were in the past.

That's why the modern farmer must keep well informed. That's the reason, also, why Gordon Conklin, editor of **American Agriculturist,** says that more than ever he is determined to keep our readers informed on all new things in farming and especially up-to-the minute on modern equipment.

DOES IT MAKE A DIFFERENCE?

I KNEW a farmer once who never got around to plant his crops until nearly everyone else had planted theirs—and he milked his cows in the same way, whenever he got to them, no matter what time that was.

I was taught that cows should be milked very regularly. But I read recently that some research workers have proved that regular milking is not so very important; in fact, that one milking could even be skipped without reducing production very much or doing any harm.

What is **your** experience? What do **you** think?

DO YOU CARE?

IN A recent statement, David Brinkley, an excellent television newscaster, told of visiting a typical newsstand where there were 450 different magazines on sale.

"It is difficult," said Brinkley, "to draw the line between good magazines and bad, but we made an honest try and came up with an estimate that of the 450 magazines on this stand 375 or 83% were trash. These are full of various kinds of nakedness, monsters, and so-called secrets and confessions."

Brinkley pointed out that there is now a bill before the U. S. Senate known as H.R. 7927, supported by the Post Office Department, which "would raise the postage rates on magazines so high that some of these would be forced out of business, while the mad monsters and others like it would not be hurt at all."

This is because the filth magazines are delivered to the newsstands directly, while the good magazines have to go through the mails.

Magazine postage rates, including those on farm papers, have been raised several times in recent years and, if passed, H.R. 7927 will raise postage rates so high that many more magazines will have to go out of business.

Now this problem definitely concerns YOU! Which do you want to read and, in particular, which do you want your children to read—clean and helpful magazines like the **Saturday Evening Post, Atlantic Monthly, Reader's Digest** and **American Agriculturist,** or the trash?

I'm not fooling. Many of the best magazines are in trouble. Read Editor Conklin's editorial in this issue on this subject, and if you care, write to the Chairman of the Senate Post Office Committee, Washington, D. C. The bill has already passed the House.



A Fourth of July Prayer

ON THIS 186th birthday of America, we pause to pay our respects to our country and to express our gratitude to our forefathers and to YOU, for the privilege of being an American. We know, God, that no other generation of men in this or in any other country has ever enjoyed the privileges that we Americans have had and still have today.

Help us then, O God, we pray, to realize and appreciate the value of those privileges and what they cost our fathers in blood, tears, and sacrifices. Help us to separate the gold from the dross; the material possessions which are temporary from the spiritual ones which are eternal. Give us to see, God, the true worth of our American heritage. Help us to know, as our fathers did, that in temporary sacrifice there are future gains and happiness for ourselves and for our children.

We ask for renewed determination to do our work and carry our responsibilities ourselves as our fathers did, instead of asking others or government to do it.

On this, our nation's birthday, help us to understand, O Lord, **why** each generation of our young people have had unlimited opportunity to build their own success and happiness. We know, God, when we pause to reflect, that we Americans have so much today because our country was built on the principle of liberty—the right of each individual to make his own decisions and to live his own life so long as he doesn't interfere with the rights of others.

Help us to stand firm against any political or other attacks on those rights, no matter how subtle or temporarily appealing those attacks may be.

As our fathers guarded their freedom, often with their lives, let **us** stand just as firm that we do not trade our liberties for a mess of pottage.

Lastly, God, in these uncertain and insecure days, give our leaders the wisdom and the courage to stand for the right, and give each and all of us **faith** that we may say, as James Russell Lowell said so well:

"Truth forever on the scaffold
Wrong forever on the throne—
Yet that scaffold sways the future,
And, behind the dim unknown
Standeth God within the shadow,
Keeping watch above His own."

DID YOU EVER DRINK SWITCHEL?

YEARS ago, switchel was a common drink in the hot hayfields. So the other day I followed an old recipe and mixed a mess of vinegar, sugar, ginger, and water and tried to drink it. But I've grown soft or something, for the stuff gagged me. Did you ever try it?

Because we lose so much salt and fluid in perspiration when working in summer, it is important to drink plenty of liquid and to maintain the body need for salt. If you perspire heavily, supplement the salt in your diet by salt tablets—but beware of these if you have heart trouble!

There is no better drink from a health standpoint than just plain cold water. Our fathers loved cold buttermilk. Milk itself, either plain or flavored, can't be beaten. And what tastes better or is more refreshing when we are thirsty than good old lemonade?

DID ADAM HAVE ONE?

THE Bible doesn't tell us that Adam ever had a hernia or rupture, but history does inform us that this affliction has been with us since the earliest days of man on earth. It ranks **fifth** in the United States in all the causes of disability. Farmers, because they have to do so much lifting, are especially liable to rupture.

Hernia is defined as a break in the intestinal wall through which a portion of the intestine may protrude.

Some people are born with a weakened intestinal wall which makes them more likely to get a rupture. The openings may appear almost anywhere in the abdominal wall, but the rupture is mostly likely to be near the groin or near the navel.

Until comparatively recently, the only control for hernias was with specially constructed belts or braces. These are awkward, uncomfortable, and unsatisfactory.

Fortunately, hernias are now operable. Surgeons have learned how to sew up the break in the wall so that when the wound heals, the patient is almost as good as new.

Like everything else, an ounce of prevention is worth a pound of cure. Care should be taken about lifting, particularly when one is middle aged or older.

EASTMAN'S CHESTNUT

I STOLE the following stories from my friend, Paul D. Sanders, editor of The Southern Planter. My conscience is clear—he probably stole them from someone else.

HOTEL CLERK: "Inside or outside room, sir?"

GUEST: "Inside, I guess; it looks like rain."

Lady (holding a cookie above the dog): "Speak, speak!"

Dog: "What'll I say?"

A dad with boys
Bats out flies;
A dad with girls
Boots out guys.

NAVY WIFE: "When we were first married, you said I had a shape like a beautiful ship."

HUSBAND: "Yeah, but your cargo has shifted."

Service Bureau

FOREWARNED!

Editor's Note: This is one of several letters which resulted from our warning on the Service Bureau page in the May issue concerning the $339 "Guessing Game":

"I received your paper and read the article in the Service Bureau just three days before a man called in connection with this same deal. He brought a card claiming we had won $1,000 in prizes if we could answer three questions.

"We missed one, and so he pulled the rigamarole of asking us to give him $339 and the names of 12 newly married couples; we would get back $25 for each couple they called on, which in time would amount to the $300 and all we would pay was the $39. He claimed he would mark it 'paid in full.'

"We told him about reading the article in your paper—and he didn't stay around long!"—*Mrs. S. Russell, Smyrna, N. Y.*

A TIMELY REMINDER

In order to protect yourself in selling any farm products (except grain and timber) in N. Y. State, make sure that the dealer to whom you are selling is properly licensed and bonded by the N. Y. S. Department of Agriculture and Markets. Each dealer should have evidence of compliance with this regulation in his possession when he stops at your farm. The newly amended law, adding 3,000 dealers to the list registered with the State, becomes effective July 1st.

WARNING!

"I am writing to warn your readers about a man who is dealing in cattle. He comes to a farm, promises a good price per lb., and sometimes gives a down payment. He says he will be back with the balance after it is dressed, but he never comes back. He is working around Cortland, Cayuga and Tompkins counties."

We found that this dealer went through bankruptcy in 1958 and has six judgments against him at present. Under the circumstances, there is no point in attempting to collect through suit.

CAN YOU HELP?

Mrs. John B. Astle, Rising Sun. Md., would like the words to the poem, "The Eversomuches," which begins "There was an old lady named Eversomuch. The name was so queer, they must have been Dutch."

If anyone has Part II of the C. A. Stephens' story "When The Savings Bank Was Robbed," or a copy of "The Return of the Absent," please write to Miss Louise Harris, 15 Jay Street, Rumford 16, Rhode Island.

Because the colored vacation slides, which they took in the Lake George to Fort Ticonderoga area, were lost, Mrs. Paul Finkey, R.1, Carlisle, Pa. is interested in buying scenic views of that region, if you have any you would like to sell.

Mrs. C. T. Smart, Pownal, Me. would like the following poems, "Forever Nineteen" and "A Boy and His Dog."

If you have any Gospel Hymn Books No. 1 to 5, which you are not using, would you write Mr. C. J. Lanz, 37 Windsor Ave., Rockville. Conn.

If you have the two copies of the Youth's Companion for March 30, 1871 and October 30, 1873, please contact Mrs. Mittie Hazard, 6 Blevin Street, Nichols, New York.

Milton R. Salls, R.D. 3, Little Falls, N. Y. would like to locate several of Edgar Rice Burrough's books; among them "Land of Terror" and "Back to the Stone Age."

Several members of the Dunn family moved from Oakham to Cammelsbush, N. Y. in 1784. Miss Dorothy Day, Box 227, Oakham, Mass. would like to know if any reader can locate Cammelsbush.

Mrs. Elmer Mayberry, Sr., R. D., Box 284, Oxford, N. J. would like to hear from anyone who has an apple tree known as "Pearmint". The fruit had a mint flavor.

George French, 7 Leo Terrace. Bloomfield, N. J. would like to buy a copy of Haydn Pearson's book, "More Country Flavor" in complete form.

Miss E. Pauline Giles, 72 Main St., Fryeburg, Me. would like to know the name and author of the following poem:

"This is the month of June
The month of leaves and roses."

Mrs. Jennie Henderson, Kent, N.Y. would like a copy of the book. "Driven Back to Eden," author unknown.

Mrs. Lou Moran, 45 West Ave. Wellsboro, Pa. would like this poem:

"Listen to the water mill through
all the livelong day.
How the clinking of the wheels
wears the weary hours away."

Mrs. Wm. Dahlgren, R.D. 3, Garfield Rd., Jamestown, N. Y. would like to find needles for an old (1900) Patent Svenskt Fab round sock knitting machine, made in Nassjo, Sweden. Also would like information on used bar type knitter.

W. V. Dorey, R.F.D. 1, Fillmore, N. Y. would like to buy a copy of the song book, "Songs That Never Grow Old."

NEW! **Jet**

PORTABLE MIST SPRAYER



Save time, effort and money spraying closely planted vineyards, orchards, tobacco fields or steep hillsides. Delivers fine mist for better coverage of plants. Only one operator needed. Low fuel consumption, lightweight, easy handling.

DEALERS WANTED—In open territories write:

Reed-Joseph Company
HIGHWAY 1, NORTH
GREENVILLE, MISSISSIPPI

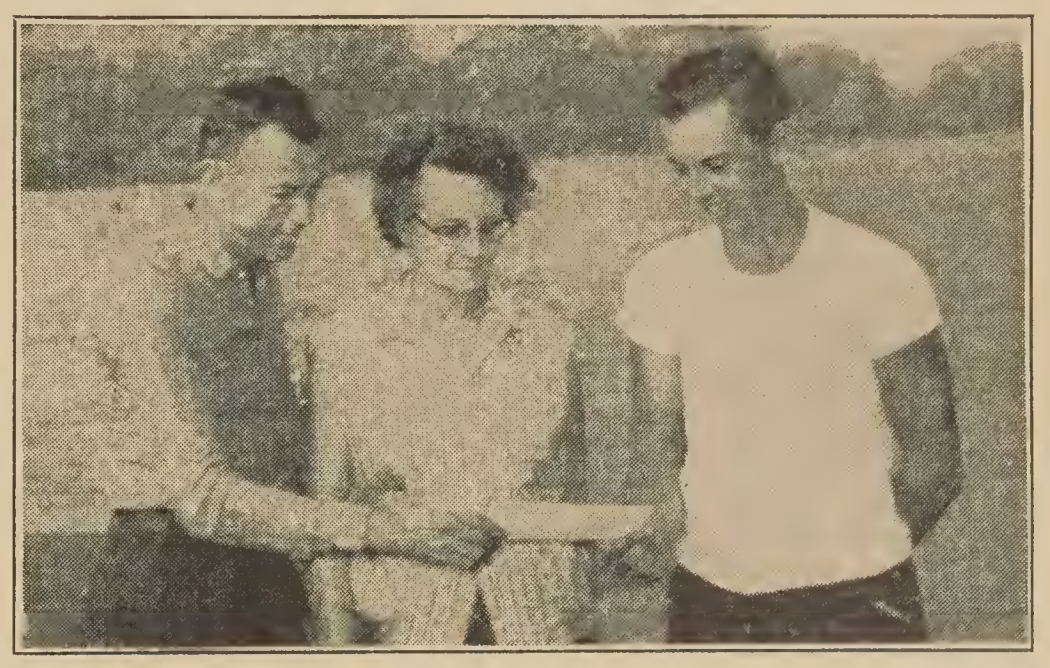
Jet

Name_____

Address_____

City_____ State_____

Protecting the family pays



Agent Len DeFrancisco, left, of Falconer, N. Y. delivered $1036.83 to Dale Mead of Sherman, N. Y. as Dale's mother looks on. Dale suffered a compound fractured leg and cut tendons when caught in a mowing machine. His two North American accident policies gave him weekly income while laid up and paid the medical expenses.

Andry C. Grant, Altamont, N. Y. — Auto accident—injured back, knee and arm	$ 306.85	Maynard C. DeMay, Palmyra, N. Y. — Hit by cow injured knee	293.00
Archie J. Keenan, Belmont, N. Y. — Hand caught in field chopper—cuts on hand	1146.43	Crawford Clark, Middletown, N. Y. — Pushed by cow—injured leg and back	310.00
Henry J. Krotz, Ellicottville, N. Y. — Hit by saw horse—injured foot	542.91	Robert Runnalls, Port Jervis, N. Y. — Thrown off wagon—internal injuries	1314.28
Ray M. Phillips, Great Valley, N. Y. — Fell—Injured chest & arm	475.55	Edward Davis, Albion, N. Y. — Caught arm in corn picker—hand amputated	1995.35
Mari B. Mosher, Aurora, N. Y. — Fell—broke wrist	452.97	Ivan J. Taft, Fulton, N. Y. — Slipped lifting manure spreader—internal injuries	456.75
Donald Kehoe, Moravia, N. Y. — Injured knee & leg when kicked by cow	576.13	Stuart Hurlburt, Jr., Onconta, N. Y. — Bumped left leg—became infected	313.26
August F. Schultz, Jr., Westfield, N. Y. — Hit by baseball—head & eye injury	850.52	Wilber A. Russ, Maryland, N. Y. — Hit head on beam—injured arm & jaw	656.85
Marilyn E. Rosage, Mayville, N. Y. — Tractor overturned—injured leg, knee and ankle	499.06	James Warner, Brier Hill, N. Y. — Kicked by cow—internal injuries	294.28
Harold L. Cornish, Elmira, N. Y. — Slipped—injured knee & back	921.79	Emerson Race, Canton, N. Y. — Motorcycle acc.—fractured leg	1215.42
William S. Segar, Jr., Horseheads, N. Y. — Fell through roof—injured leg	255.00	Carl Garkowski, Schenectady, N. Y. — Tripped & fell—fractured knee cap	100.00
Floyd Calhoun, Sherburne, N. Y. — Bunted by cow—Fract. arm	150.00	Albert A. Marks, Amsterdam, N. Y. — Hit by car—injuries to back & leg	341.49
Jembert E. Boas, Mooers Forks, N. Y. — Cut foot in tractor while mowing hay	120.00	Allyn E. Morgan, Reading Center, N. Y. — Cow slipped & fell on insured—broken neck	242.86
Gary Provoncha, Mooers, N. Y. — Kicked by cow—injured ankle	120.00	Kenneth Heitmann, Romulus, N. Y. — Kicked by cow—injured knee	127.86
Byron D. Dever, Homer, N. Y. — Stepped into woodchuck hole—fract. leg	863.75	Ronald D. Harrington, Troupsburg, N. Y. — Knocked down by bull—injured back	260.00
Lloyd Cotterill, Dryden, N. Y. — Fell—injured back and leg	1099.30	William C. Newcomb, Rathbone, N. Y. — Wrench slipped—fractured fingers	311.14
Chester Seofield, Meredith, N. Y. — Dragged by cow—injured knee	553.13	Alexander Sattler, Fosterdale, N. Y. — Fell off chair—injured back	118.64
Ahram Forman, Delhi, N. Y. — Barrel fell on insured - internal injuries	531.75	Yucalan Digges, Barton, N. Y. — Caught in power take-off—broken hand & forearm, cuts	1000.00
Henry Stalica, Alden, N. Y. — Slipped, moving board—back injury	210.00	Kenneth Pipher, Tioga Center, N. Y. — Thrown from combine—injured back	365.29
Nelson A. Merrick, Brushton, N. Y. — Home burned—severe burns of face, back, neck & arms	400.00	Russell F. Searles, Groton, N. Y. — Fell from ladder—fractured ribs	732.57
John L. Subik, Jr., Johnstown, N. Y. — Auto acc—internal injuries	438.44	Morris Sims, Kerbonkson, N. Y. — Thrown from manure spreader—injured knee	500.00
Duane Kingdon, Pavilion, N. Y. — Fell—Injured back	242.80	Charles J. Hack, Walworth, N. Y. — Kicked by cow—injured knee	548.80
Myron Dieter, Corfu, N. Y. — Hit by grain elevator crank—fractured arm	210.00	Charles E. Hemminger, Lyons, N. Y. — Railroad tie fell on leg fractured leg	130.00
Walter Skibinski, Little Falls, N. Y. — Caught arm on conveyor belt—severe burns on shoulder	220.00	Paul N. Conrad, Strykersville, N. Y. — Struck in side by heifer—injured back	315.00
Charles D. Dunham, Hammond, N. Y. — Thrown from horse—Fractured arm	362.75	Paul E. Roe, Bellona, N. Y. — Stepped on stone—injured foot	162.86
George A. White, Watertown, N. Y. — Slipped with can of milk internal injuries	1025.00	Hiram C. Redmond, Laceyville, Pa. — Fell out of truck—injured back	126.00
Dora Kloster, Croghan, N. Y. — Crushed finger on machine—fractured finger	541.72	Merton L. Powell, Warren Center, Pa. — Knocked down & stepped on by cow—fractured leg	210.00
Leona J. Shue, Port Leyden, N. Y. — Fell down embankment—Fractured arm	1107.69	Henry Wood, Middlebury Center, Pa. — Struck by tailgate—internal injuries	776.26
Clinton T. Reed, Lowville, N. Y. — Car hood fell on head—injured skull	851.10	Ted Esterline, North East, Pa. — Foot slipped while riding tractor—injured back	330.04
William D. Stirling, Caledonia, N. Y. — Hit by car—fractured ribs, leg & shoulder	1154.83	John W. Hackett, Genesee, Pa. — Slipped moving stone—fractured finger	105.00
Smith Tucker, Canastota, N. Y. — Slipped off moving hay wagon—fractured ribs	312.86	Paul Walworth, New Milford, Pa. — Fell thru floor—broke leg	120.00
Robert L. North, Brookfield, N. Y. — Struck plate glass door—severe bruised leg	299.88	Maynard Brian, Roaring Branch, Pa. — Car went off road—Fractured ribs & bruises	159.28
Lewis Willig, Penfield, N. Y. — Kicked by cow - bruised leg and back	325.70	Metro Muta, Waymart, Pa. — Caught hand between stanchions & pipes - fractured wrist	410.35
Joyce Burns, Scottsville, N. Y. — Fell—fractured ankle	519.58	Helen E. Doyle, Starrucca, Pa. — Fell—fractured leg	132.14
Howard Sager, Johnstown, N. Y. — Slipped getting off tractor—injured back	193.00	Roy W. Heitmann, Blairstown, N. J. — Tractor rolled on foot injured foot	340.55
E. Vivienne Nelson, Fort Plain, N. Y. — Crushed between cows—fractured ribs	167.14	Henry Winecker, Annandale, N. J. — Fell from truck backwards—injured back	236.00
Donald M. Colton, Boonville, N. Y. — Fell fractured leg	491.25	Frank Snyder, Woodstown, N. J. — Fell from ladder—fractured heel	686.45
Graham Hart, Jr., Marietta, N. Y. — Crushed by farm horse—injuries to chest and back	694.26	Jerry Toto, New Brunswick, N. J. — Fell off tractor injured arm	271.00
Clair W. Melvin, Baldwinsville, N. Y. — Caught in ensilage unloader cuts & bruises on leg	271.20	Elizabeth Palmer, Englishtown, N. J. — Fell from step—fractured ankle	968.83

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)

NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING — ITHACA, NEW YORK

GREAT NEWS FOR NON-DRINKERS!!

HOSPITALIZATION AT REDUCED RATES

Pays $100.00 Weekly from First Day for Life to Readers of AMERICAN AGRICULTURIST

NO WAITING PERIODS * ONLY YOU CAN CANCEL NO AGE LIMIT * NO SALESMAN WILL CALL

If you are the one American in four who does not drink, the Gold Star Total Abstainers' Hospitalization Policy will pay you $100.00 a week in cash, from your first day in the hospital and will continue paying as long as you are there, even for life!

If you do not drink and are carrying ordinary hospitalization insurance, you are of course helping to pay for the accidents and hospital bills of those who drink. Alcoholism is our nation's #3 health problem, ranking immediately behind heart disease and cancer! With the GOLD STAR PLAN you are not called upon to help pay the high bills for the ailments and accidents of those who drink. GOLD STAR rates are based on the SUPERIOR HEALTH RECORDS of Non-Drinkers!

For the first time, you can get the newest and most modern type of hospitalization coverage at unbelievably low rates, because the Gold Star Policy is offered only to non-drinkers. And your low Gold Star premium can never be raised because you have grown older or have had too many claims. Only in the event of a general rate adjustment up or down for all policyholders can your rate be changed!

One out of every seven people will spend some time in the hospital this year. Every day over 64,000 people enter the hospital—47,000 of these for the first time!

READ WHAT A BLESSING THIS PROTECTION HAS BEEN TO OTHERS

Carman McEwen, Malone, New York: "I certainly appreciate the prompt action in payment of my claim for my recent hospitalization."

Mr. & Mrs. Robert W. Nelson, Leicester, Massachusetts: "We certainly appreciate your promptness in approving this claim and sending a check. We had searched for this type of policy which would be adequate, yet within our means.

Fred G. Wilman, Tilton, New Hampshire: "Less than a month after receiving our policy, it became necessary for Mrs. Wilman to have surgical treatment at the hospital. I thank you for your prompt settlement of my claim. I will be glad to recommend your Gold Star Plan."

Gene C. Minney, Lancaster, Pennsylvania: "Not having had this policy very long, 't certainly has proved its validity by being used. Its trustworthiness has proved itself to me."

Harry Hertzog, Annville, Pennsylvania: "When sickness comes your way, and bills come in, it is so good to know that you are covered by a group of men with a deep concern, and that they are ready with a helping hand. We are more than satisfied with the way you have handled our claim."

Jesse F. Colson, Steuben, Maine: "I am completely satisfied with the prompt attention you gave my recent claim and for the check paid in accordance with your policy. I know now I am insured by a very reliable Company and will recommend you highly to all my friends. Thank you."

This plan offered exclusively by

DE MOSS ASSOCIATES, Inc.
VALLEY FORGE, PENNA.

"Special Protection for Special People"

LOW RATES FOR NON-DRINKERS

With a Gold Star Total Abstainers' Hospitalization Policy, you receive $100.00 per week in cash, as long as you remain in the hospital, starting from your very first day there, for either sickness or accident. If your hospital stay is less than one week, you still collect at the rate of $14.29 per day. Even if you are already covered by another policy, the GOLD STAR PLAN will supplement that coverage, and will pay you directly, in addition to your present policy. And your benefits are tax-free!

This wonderful, generous protection costs only $4 a month for each adult, age 19 through 64, or $40 for twelve full months. For each child under 19, the rate is just $3 for a month's protection. And for each adult of age 65 through 100, the premium is only $6 a month, or $60 for a full year.

And remember, with Gold Star, the NO LIMIT Hospital Plan, there is NO LIMIT on how long you can stay in the hospital, NO LIMIT on the number of times you can collect (and the Company can never cancel your policy), and NO LIMIT on age!

Compare this plan with others. We welcome comparison because the GOLD STAR PLAN pays from the very first day (we can't pay any sooner); and it pays forever...as long as you remain in the hospital (we can't pay any longer!).

GUARANTEE

MONEY-BACK GUARANTEE

We'll mail your policy to your home. No salesman will call. In the privacy of your own home, read the policy over. Examine it carefully. Have it checked by your lawyer, your doctor, your friends or some trusted advisor. Make sure it provides exactly what we've told you it does. Then, if for any reason whatsoever you are not fully satisfied, just mail your policy back within ten days, and we'll cheerfully refund your entire premium by return mail, with no questions asked. So, you see, you have everything to gain and nothing to lose.

REMEMBER, on the average, one person out of every two families will spend some time in the hospital this year.

Of 64,000 people who enter the hospital each and every day—47,000 of these will enter for the first time!

Every 4 minutes someone is disabled for life.

Check These Remarkable Features:

- ★Only YOU can cancel.
- ★Good anywhere in the world!
- ★Pays in addition to any other hospital insurance you may carry.
- ★All benefits paid directly to you in cash—tax free!
- ★Claim checks are sent out Airmail Special Delivery!
- ★No age limit.
- ★Immediate coverage! Full benefits go into effect noon on the day your policy is issued.
- ★No limit on the number of times you can collect.
- ★Ten-day unconditional money-back guarantee!
- ★Pays whether you are in the hospital for only a day or two, or for many weeks, months, or even years!
- ★No policy fees or enrollment fees!

Only Conditions NOT COVERED

★Every kind of sickness and accident covered except, of course, hospitalization caused by the use of alcoholic beverages or narcotics, pre-existing conditions, mental or nervous disorders, pregnancy, or any act of war. Everything else IS covered!

HERE ARE YOUR GOLD STAR BENEFITS

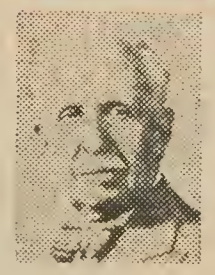
Pays $100.00 weekly for life while you are in the hospital.

Pays $2,000.00 cash for accidental death.

Pays $2,000.00 cash for accidental loss of one hand, or one foot, or sight of one eye.

Pays $6,000.00 cash for accidental loss of both hands, or both feet, or sight of both eyes.

OUTSTANDING LEADERS SAY—



J. C. PENNEY, Noted philanthropist, Founder of the J. C. Penney Company: "I have a sincere conviction that liquor is one of the chief causes of unhappiness both to the people who drink and to those who are near and dear to them. Early in my life I decided not to touch liquor. I am delighted to know of the DeMoss Gold Star Total Abstainers' Plan that provides a premium rate so much lower."



DR. DANIEL A. POLING, Noted Minister and Editor of The Christian Herald: "The advantages of a hospital plan which is available to non-drinkers only are obvious. The lower rate is made possible because you are not paying the bills for the illnesses and accidents of those who use alcohol."



HON. FRANK CARLSON, United States Senator, Kansas: "As a teetotaler, I am delighted that Arthur DeMoss has worked out a practical plan to provide hospitalization for non-drinkers at a reduced cost. I would urge those who are concerned about their financial security to take advantage of this excellent opportunity."

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My name is _____

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City _____ Zone _____ State _____

Date of Birth: Month _____ Day _____ Year _____ Height _____ Weight _____

My occupation is _____

My beneficiary is _____ Relationship _____

I also apply for coverage for the members of my family listed below:

	NAME	AGE	HEIGHT	WEIGHT	BENEFICIARY
1.					
2.					
3.					

To the best of your knowledge and belief, have you or any person listed above ever had high or low blood pressure, heart trouble, diabetes, cancer, arthritis or tuberculosis or have you or they, within the last five years, been disabled by either accident or illness, had medical advice or treatment, taken medication for any condition, or been advised to have a surgical operation? Yes_____ No_____

If so, give details stating person affected, cause, date, name and address of attending physician and whether fully recovered: _____

Neither I nor any other person listed above uses alcoholic beverages, and I hereby do apply for a policy with the understanding that the policy will not cover any conditions existing prior to the issue date, and that it shall be issued solely and entirely in reliance upon the written answers to the above questions.

Date: _____ Signed: X _____

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AUGUST 1962

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1962
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7 DAYS 7 NIGHTS
AUG. 28 - SEPT. 3
SYRACUSE

IN THIS ISSUE Handling Poultry Manure, Page 6 . . . Gayway Farm Notes, 10 . . . More Milk From Fewer Cows, 12 . . . Harvesting Potatoes, 14 . . . Milk Supply and Demand, 18 . . . Gasoline Storage, 20 . . . Fall Styles, 25.



New Idea 1-Row

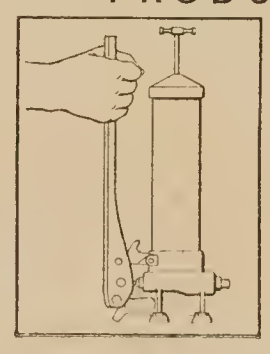
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GUIDE TO THE FAIR

By ISA LIDDELL

OFFICIALLY it's The New York State Exposition this year, helping to spotlight the interdependence of industrial and agricultural activities—but it takes time for many to get accustomed to a new title, and to many of us it will be "The Fair" for a good many years to come.

Certain it is that under the able direction of Harold L. (Cap) Creal of Homer, the director, (and a member of the American Agriculturist Foundation) the 1962 Exposition will be well worth a visit.

Starting on Tuesday, August 28, and running through Labor Day, September 3, the days will be filled with a multitude of activities, sights to see, fun and frolic. For the first time the gates will be open from 10 a.m. to 10 p.m., and half price tickets will be on sale at outlets across the State from August 9th to 27th. Incidentally, your ticket gives you a chance at the free 17-day trip (for two) to Rome, Paris and London, via Pan American. The winner will be announced on closing day, September 3—and you needn't be present to get the award.

Frank Havlen, North Syracuse, who has charge of the Farm Buildings Project, tells us that one particular change this year is that the Future Farmers are going to take over the farm machinery shop and exhibit there some of their homemade projects. If the weather is too hot, maybe they can sneak into Buster Crabbe's Aqua Show! The pool is being constructed adjacent to the farm machinery building.

In the Youth Department, farm boys and girls from all parts of the State will compete for premiums totaling $26,529, with exhibits in homemaking, poultry, crops, dairy and livestock, conservation, agricultural engineering, and many other subjects.

With the accent on youth, don't overlook the fact that the State's high school science winners will display their prize-winning entries—and, of course, there is the high school band contest on the opening day.

Dr. Samuel Slack of Cornell, dairy superintendent, reports that the cattle department is offering $26,880 in premiums for both dairy and beef cattle. During the past three or four years, in the neighborhood of 1,200 dairy and beef cattle have been shown in the ring, and he fully expects this year to live up to the standards. "This," says Dr. Slack, "is considered a show window of purebred cattle for the Northeast."

The judging of dairy cattle will begin with the Brown Swiss. Guernseys, and Milking Shorthorns on Wednesday, August 29; Ayrshires and Jerseys on Thursday, the 30th, and the Holsteins on Thursday and on Friday, the 31st. The beef cattle judging will be on the same days, with the Hereford classes on Wednesday, the Aberdeen-Angus on Thursday, Shorthorns on Friday.

Professor Ellis Pierce of Cornell, in charge of quality meats contests, says that each entrant in the carcass shows (beef, sheep and swine) will be permitted to enter two animals. The first prize is $50, and each succeeding prize will decrease by $5. Also, the animals will be placed alive and awarded ribbons, but the premium money will be distributed on the carcass placing.

An innovation this year which should stimulate a lot of additional interest is the sale of the champion carcass, which will follow the judging of the grand champion steer in the Open Steer Show on Friday afternoon, at approximately 4 p.m.

At the sheep and swine show, top flocks and herds from New York, the New England states, Pennsylvania, Ohio, and other states in the eastern half of the nation, will be exhibited. Total premium awards in the sheep department amount to $6,948, to be distributed among seven breeds of sheep. Rambouillet sheep and wool will be judged Wednesday morning, August 29; Dorset and Tunis during the afternoon; Southdown and Corriedale that same evening. On Thursday, Hampshire and Columbia will be judged in the morning; Suffolk and Shropshire during the afternoon; finishing with Cheviot and Oxford during the evening.

The total premium money offered in the swine department is $4,844, also divided among seven breeds. Professor Warren Brannon of the New York State College of Agriculture, who is superintendent in charge of the sheep, swine and goat department, emphasizes that tremendous improvement has been made in the production of meaty-type hogs. The judging schedule for swine includes market barrows at 8 a.m. Tuesday, August 28; carcass barrows at 1 p.m.; and Landrace breeding hogs at 3 p.m. the same day. On Wednesday morning, August 29, the Berkshires will be judged; Durocs and Poland China in the afternoon. Thursday, August 30, will be the final day for judging swine, and will include Hampshire in the morning, with Chester Whites and Yorkshires during the afternoon. Wether and carcass shows will be conducted during the morning of August 28.

For the second year there will be a Poultry Foods Festival, the theme of which is "Poultry Products for Food and Fun." Governor Rockefeller will again be present at the Egg Breakfast, and so will Television's Mark Wilson of the "Magic Land of Allakazam."

Special days will be devoted to New York poultry products, beginning with Long Island Duck Days on August 28 and 30, when there will be live TV and radio broadcasting from the Foods Festival Building. The 29th and 31st will be known as New York Egg Days; September 1 and 3 will be "Broiler Days"; and the special days will conclude with "Turkey Day" on September 2.

But it's not all serious in Eggland. Of attraction to old and young will be the duck slide, recalled this year by popular demand. And don't forget to see the chickens that are trained to run a voting machine!

Among other points of interest at the newly-decorated Exposition grounds will be the All-Foods Exposition; the beautiful flowers in the Horticultural building; the Indian village; the horse-pulling contests; the Grange exhibits; the agricultural museum. Many of you old-timers will remember when Ed Eastman's mother was the ruling spirit of this latter exhibit.

These are only samples of the many events awaiting you. There's a model farm to inspire you to do some remodeling of your own; forage crops will be exhibited next to the loafing area in the Dairy Building, and there will be demonstrations of such implements as an automatic feed auger, silage unloader, etc. More than $1 million of farm machinery will be on exhibit in the Farm Machinery Building.

The Exposition will present 82 all-free shows at the grandstand and Empire Court, including Jane Morgan and Neil Sedaka (with an all-star supporting cast); popular Jerry Murad and his Harmonicats; Wiere Brothers of television fame; Teddy Phillips and his orchestra. There too, will be Hubert Castle, world-famous high wire daredevil and his three-ring Circorama. Mark Wilson we have already mentioned, but you will have an opportunity to see him in Empire Court from Wednesday, August 29 through September 3.

For the women's interests, check Augusta Chapman's article on Page 27.

Editorials



By Gordon Conklin

MILK SITUATION

THE SUPREME COURT has slipped a torpedo into the side of the good ship "Milk Order" by striking down the compensatory payment provisions applying to milk handlers shipping milk into any Order area from outside its boundaries. Dr. Leland Spencer of Cornell dramatized the seriousness of the situation by predicting a potential loss in annual income to dairymen of $110,000,000—unless "appropriate action is taken."

Fortunately, Secretary of Agriculture Orville Freeman has made quick moves to temporarily close the breach. Dairy leaders are working hard to formulate amendments to milk orders that will be legal—and yet accomplish much the same purpose as the compensatory payment provision.

With turkey growers rejecting a national marketing order for their industry, and with the rough sailing experienced by the 1962 Farm Bill, it looks unlikely that there will soon be significant national legislation regulating northeastern dairying. Coming to grips with problems of the dairy industry will be on a regional basis, in my opinion a better approach anyway.

Meanwhile, proposals for solutions of these problems fly thick and fast in the milkshed. You'll want to read Chet Smith's comments on page 18—one proposal to get milk supply in line with demand.

DOESN'T MEAN A THING

AN INTERNATIONAL exchange student, Moslem by faith, was attending church in this country with a Christian friend. Eager to understand more about this religion similar to his own in some respects, young Ahmed asked his friend about the meaning of the cross, the significance of the symbols in the stained-glass windows, and the reasons for the particular order of worship.

The minister, notorious for extremely long sessions at the pulpit, arose to give his sermon. As he rose, he removed his watch and laid it on top of the pulpit. Ahmed. watching intently, leaned over to his friend and asked, "What's that mean?" His friend replied, "Not a darn thing!"

So it seems with those words, "Ask not what your country can do for you—ask what you can do for your country!" Hearing them, I hoped that here would be a man who would really lead his nation in making hard but necessary decisions—including a balanced budget and greater willingness to face up to personal responsibility.

Instead, Senator Harry Byrd informs us that "200 actions and proposals involving **increased** Federal obligation of public money and credit can be documented in Presidential communications during the current Administration." **Only a year ago** the statutory limit on Federal debt was $293,000,000,000. Raised three times in the last year, the limit now stands at $308,000,000,000. Our national debt exceeds that of all other nations of the world combined.

Senator Byrd continues, "Federal debt and deficits are the prime factors in inflation which continues to reduce the value of the dollar.

My friends, both political parties must share the responsibility for "spending our nation broke." Perhaps it is too much to expect of any human President—or Congressman—that he resist the enormous temptation to become popular with you and I (and people overseas) by making a place for us at the public trough. We all have one thing in common—our wants exceed our resources.

But must we conclude that human nature absolutely forbids fiscal responsibility in national public funds? It would sometimes seem we must; in the last 31 years, the Federal government has been on a deficit financing basis for 25 of those years.

Many are the folks living up and down the roads of the land that know it is humanly possible to live within a balanced budget that even includes saving a little money most years —they've done it all their lives. It's meant gritting their teeth and often going without, but they'd have it no other way.

I can only conclude that Congress is the key to the situation; a positive step would be to refuse to raise the debt limit further. To paraphrase William Jennings Bryan, "You shall not crucify mankind upon a cross of worthless dollars!"

TOMORROW'S COW

GOT TO GAZING into the crystal ball the other day and here is what I saw of that critter my kids call a "moo-cow." The time: 1975; the place: a typical dairy farm, U. S. A.

Like the caged hen, Ol' Bossie moves around not at all—feed and water are brought to her choppers and milk flows from udder to tank. She is now a production-line milk machine, almost bolted to the floor just like the drill press and metal lathe of the factories.

Special sanitizing lights are built into the curbs at each side of her stall, bathing the floor with sterilizing rays that kill mastitis organisms. As a further precaution, plastic caps carrying an antiseptic liner are slipped over the teats immediately after milking, not to be removed until next milking time.

Hormones bring cattle into heat whenever desired by the dairyman, or he may choose to buy replacements and use a hormone treatment that keeps cows in production without freshening. Bulls are raised commercially to insure good quality hot dogs, but a very few are used to inseminate thousands of cows.

Roughage has declined in relative importance, replaced by higher levels of grain feeding. There has been a marked shift toward specialization by one farmer in milk production, by another in feed production—rather than having both on the same farm.

Fly problems are a thing of the past because cows rarely leave the aerosol-fogged barn. Line fences have been replaced by colored markers whose only function is to remind neighbors about the location of the boundary lines.

Some things about the cow are the same, though—her tail still catches us in the kisser now and then; she does her best to swipe her neighbor's grain; she enjoys having her neck scratched.

Think my crystal ball is haywire—or is it coming in loud and clear?

WELL DONE!

MOST EVERY farm family in New York State is acquainted with "Erwin Roads," roads improved by town highway departments with the help of State funds. Towns in 51 counties have participated in the program since it began on April 1, 1952, and 10,500 miles of improved highways have been built.

Austin Erwin, a leader in bringing about this highway improvement program, completes 52 years of elective public office when his term expires on next December 31. He is not running for re-election.

Senator Erwin, as Senate finance chairman for the past eight years, has watchdogged State aid programs. He also played an important part in developing the recently approved constitutional amendment for court reorganization.

As taxpayers and citizens, we owe him a debt of gratitude for a job well done.

OUT OF THE MOUTHS OF BABES

THE other night I was putting my little 7-year old girl to bed and we were rocking before saying our prayers together. We were both still troubled by some discipline administered before supper—she because it hurt to sit down, and I because the duty wasn't a pleasant one.

In a small voice, she said, "Daddy, why is it I get a 'pin' in my heart at times — when something doesn't go quite right it just seems to come up through me and bust all over inside. I want to do what's right and help people —why do I still do bad things sometimes?"

As she told me of her very human symptoms of jealousy, anger, envy, and animosity, I mused about how little I really knew. I could tell this little girl, or locate books that could, something about how to send a rocket to the moon, transmit a TV image a thousand miles, or build a bomb whose awesome power is almost beyond belief. But I'm afraid I didn't answer very well her simple question about the baffling paradox of the human heart.

Maybe if we knew more about the "pins" in the hearts of Nikita Khrushchev, Fidel Castro — and ourselves — we could build a better world.

AMERICAN AGRICULTURIST

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Founded 1842 Volume 159 No. 8

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AA's Farm Dollar Guide

GOVERNMENT PLANS FOR AGRICULTURE have hit snag. The Food and Agriculture Bill of 1962 is dead. House Agriculture Committee has approved a substitute bill. It would continue incentive payments (but at lower rate) without any acreage reduction of feed grains; continue current wheat program; and provide for a voluntary reduction in milk production. Amendments are likely; passage is uncertain.

Without some legislation, farm program will go back to its 1960 status, with ineffective controls and supports which encourage production.

The Turkey Marketing Order was soundly defeated, with 56.6% eligible voters saying "No." These actions cast grave doubt on the proposed potato marketing order, or for legislation putting stiff production controls on potatoes--or any crop.

IF YOU CUT HAY ON DIVERTED ACRES this year you will get no government payment. This hay may cost more than it is worth. Hay prices are up. If you are short and hay costs more than $35.00 per ton, oats, barley or corn may be a better buy. Citrus pulp is a good substitute for corn silage; one ton will replace four tons of silage. To avoid possible prussic acid poisoning, don't graze sudan grass until it is 1½ feet tall.

TENNESSEE EXPERIMENT STATION REPORTS that heifers fed all the grain they would eat grew faster, were fatter, but produced 15% LESS milk in their first lactation than heifers raised on top quality roughage.

LABOR UNIONS STILL HOPE TO UNIONIZE WEST COAST FARM LABOR. In Congress, Bill No. S-1129, introduced by Senator Williams of New Jersey, would give U. S. Labor Department power to recruit, transport and contract migrant workers.

USDA REPORTS THAT PROLONGED HOT WEATHER interferes with dairy cows' breeding cycle. Only remedy is to keep cows cool as possible.

POULTRY SURVEY COMMITTEE of the American Feed Manufacturers Association says: U. S. farm TURKEY prices, September-December, will average about 23 cents, 5 cents ABOVE '61. U. S. farm BROILER price, July-September, will average 14 to 14.5 cents, about 2 cents ABOVE '61. U. S. farm EGG price for year beginning October 1 to average 33 cents, about same as '61.

The Song of the Lazy Farmer



WHENE'ER my corns begin to pain, thus indicating it will rain, then I enjoy my misery 'cause I can loaf some more, by gee. When raindrops fall I can not go outside to plow or even hoe; Mirandy can't complain a bit or tell me to git up and git. She hates it, but leaves me alone, and so my time is all my own; at least, that's how it's worked to date, of course there's no sense pushing fate, it's possible if I should stay in her sight on a rainy day, she'd think up some obnoxious thing that I would have to do, by jing.

So when the rain begins to fall, I never hang around at all; I get some place where I can lay and pass some pleasant time away. My fav'rite spot is in the mow, there's nothing quite so nice, somehow, as resting on the hay up there and watching drops fall through the air. I love the sweet alfalfa smell, and that of steamy rain as well; it's never long until my eyes get heavy as the stormy skies, then I crawl back into the gloom where it is dark and there is room, I stretch out there upon the hay and soundly sleep most of the day.



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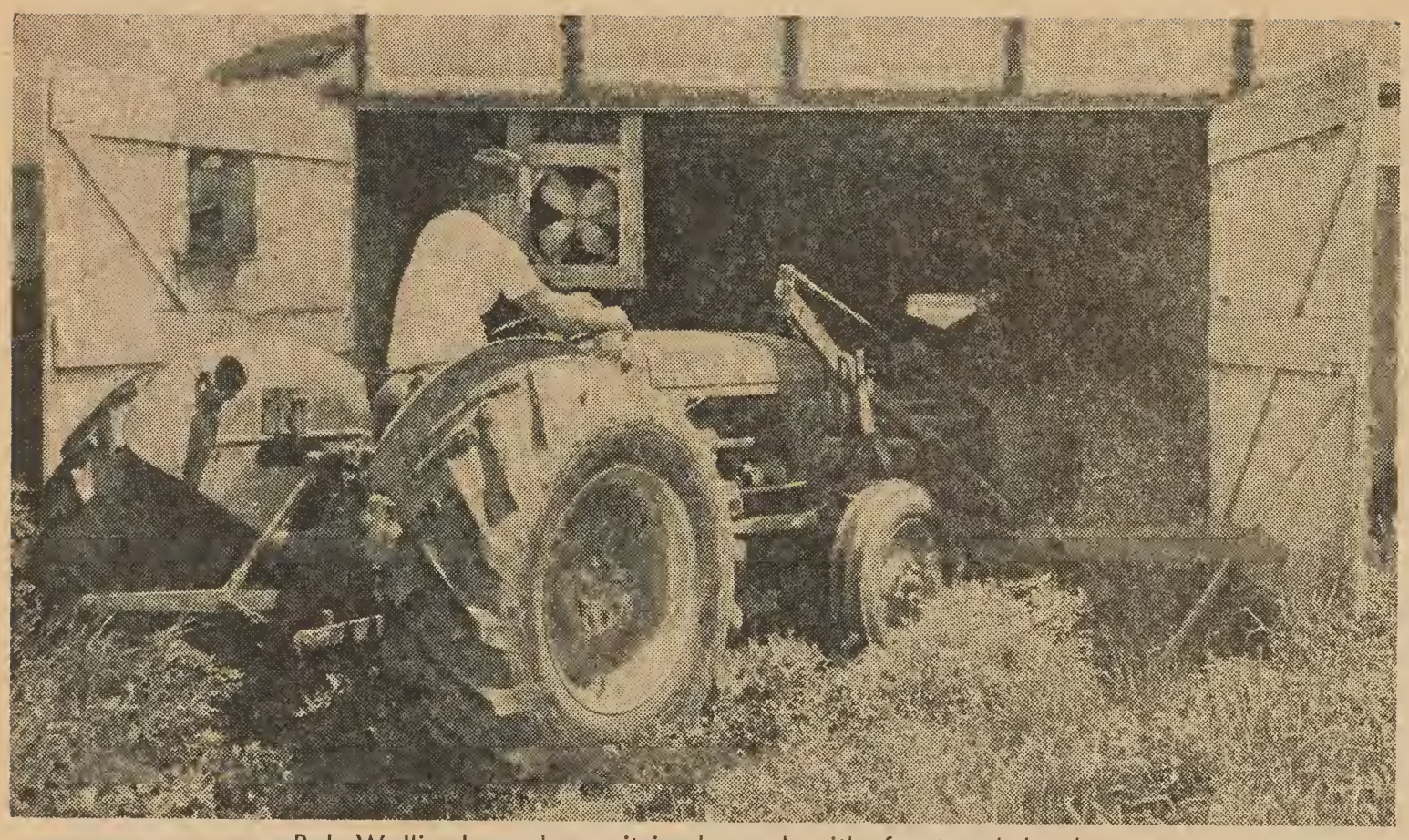
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Bob Wallis shows how pit is cleaned with front-end loader.



Fourteen foot-wide pit shown being cleaned above is under wire at left half of picture.

"STORE" POULTRY DROPPINGS FOR YEARS

Here's how two Pennsylvania poultrymen handle manure disposal.

TWO KEYSTONE State poultrymen have an approach to poultry manure disposal that you will find interesting. They are Edwin Wallis (business name, Edwin Wallis and Sons) of Liverpool, and Oscar Fyler of Millerstown.

Here are comments by Ed Wallis:

"We've been using since 1958 a pit 7 feet deep and 14 feet wide for "storing" poultry droppings. The pit is built right down through the center of a building 210 feet long by 40 feet wide. Half the length of this pit has a wire covering, the other half has a slat floor.

"As a result of experimenting with these two pit coverings, we believe the birds prefer slats and are installing them in a new 200 foot addition to the building. The pit in the addition is 17 feet across—made an extra 3 feet wider because we aren't using tiered feeding and roosting here and it requires more room to put feed and water on one level.

"Mechanical feeders and trough water fountains are above the pit, resulting in most of the droppings going directly into it. To date no manure has been taken out of the pit, even though until 1962 all litter was pushed into it at the end of the laying year. However, this year we did remove floor litter from the building to avoid excessive build-up in the pit.

"The present depth of manure in the pit would average around three feet; decomposition of droppings constantly "settles" this depth. There is a door at each end of the pit so a tractor and front-end loader can go right in to load manure. We sell most of our poultry manure to dairy and crop farmers, delivering it by truck, three to four tons at a load.

"We have noticed no objectionable odors, in fact much less than in some of the other buildings in which we have mechanical pit cleaners. Flies haven't been as much problem in the deep pit house as they are when we clean houses twice a week. No insecticide program in either housing arrangement seems necessary to control flies.

"Rat control can be a problem, though, because the deep pit remains untouched for so long. We hire an exterminator who keeps rats under control, however, and have had no problem with them.

"The pit has cinder block sidewalls and a dirt floor; the site must be **well drained.** The dirt floor has several advantages; its economy, good drainage of moisture from waterers and droppings, and a tempering influence because of slowly changing soil temperatures, keeping house warmer in winter and cooler in summer.

"In the new addition, we're using a pilaster every 10 feet on the outside of pit walls for added strength. Homosote forms the outside wall of the building and plywood the interior wall with two inches of insulation in between (six inches of wood shaving insulation in ceiling).

"Our floor system provides about 1½ square feet per bird. We have around 25,000 layers and raise an additional 50,000 started pullets each year for sale.

"The deep pit gives us flexibility in operating; we can store poultry manure and move it when our customers, the weather, and our schedule are all agreeable. We're in favor of the arrangement."

* * *

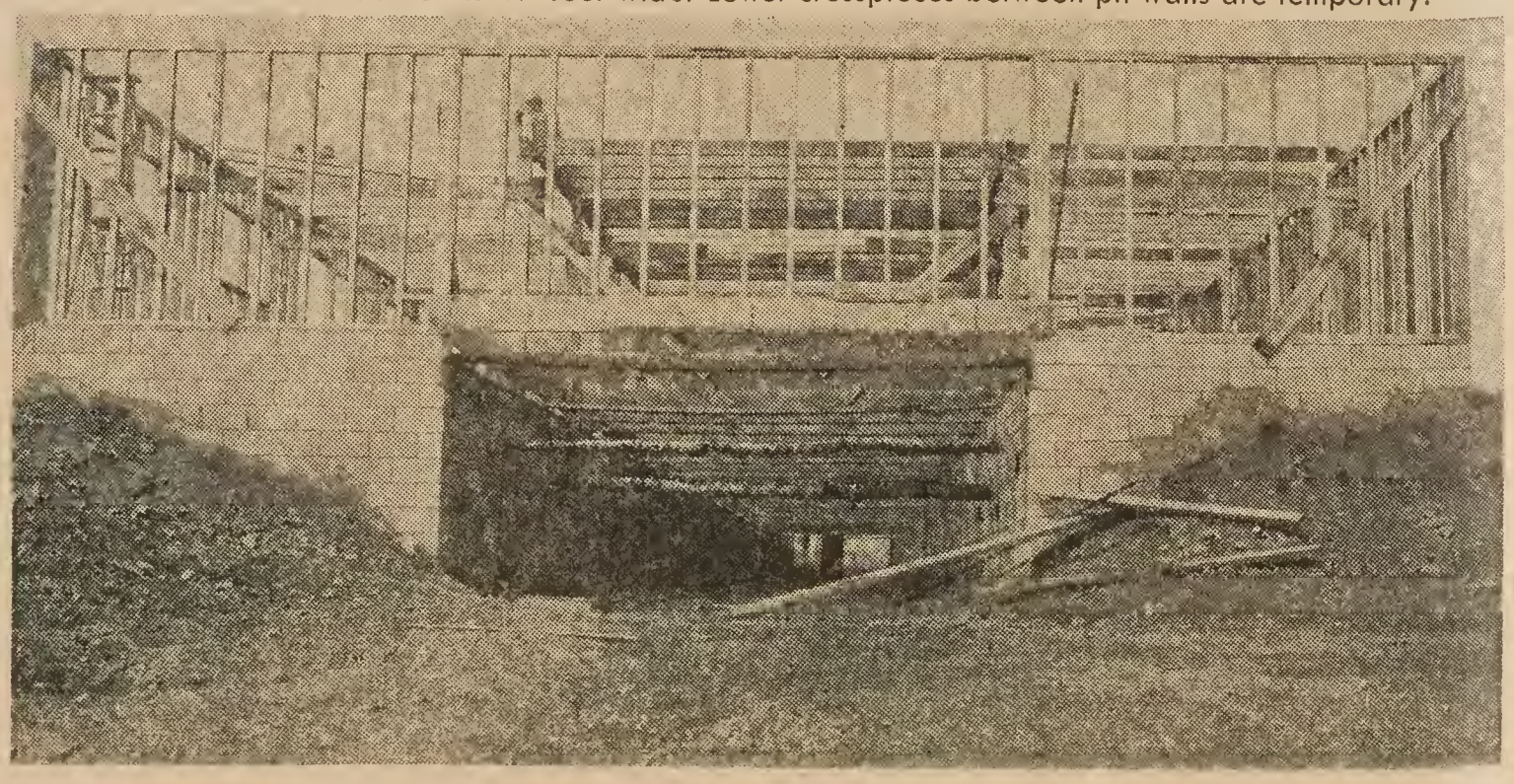
Oscar Fyler has used a deep pit for poultry manure "storage" for six years. He first saw pits in use at a poultry farm in the Keystone State's York County.

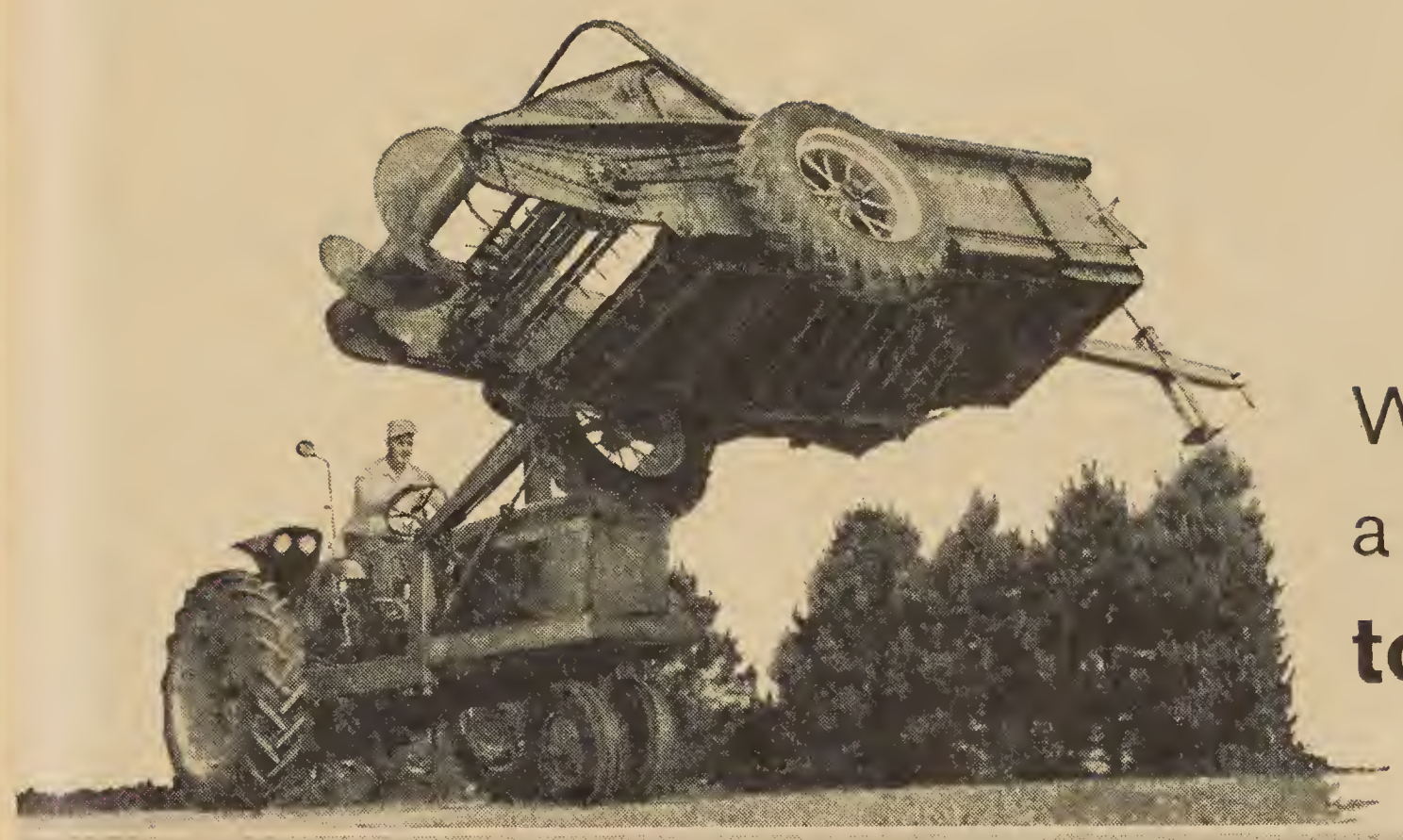
His pit, in the basement of a remodeled barn, is about 5½ feet deep. (including a 2 foot "rim" around the top of the pit). It is 14 feet wide and topped with heavy wire mesh whose openings measure 1" x 2"; waterers and mechanical feeders are located above the pit.

Since the building is 36' x 114', floor space measures 11 feet wide on each side of the pit. There are fans that pull air in and exhaust it through doors at the back of the pit. The bottom of the pit is dirt; cleaning is done with a front end loader once a year, usually around the middle of September. Oscar believes, though, that it wouldn't have to be cleaned every year; the annual build-up of manure in the pit is only about two feet thick.

Oscar reports no problem with odor, and says he would use the same setup if he were to build another poultry house. He also feels that a strict rat control program is necessary because the pit can provide a potential hiding place for them.

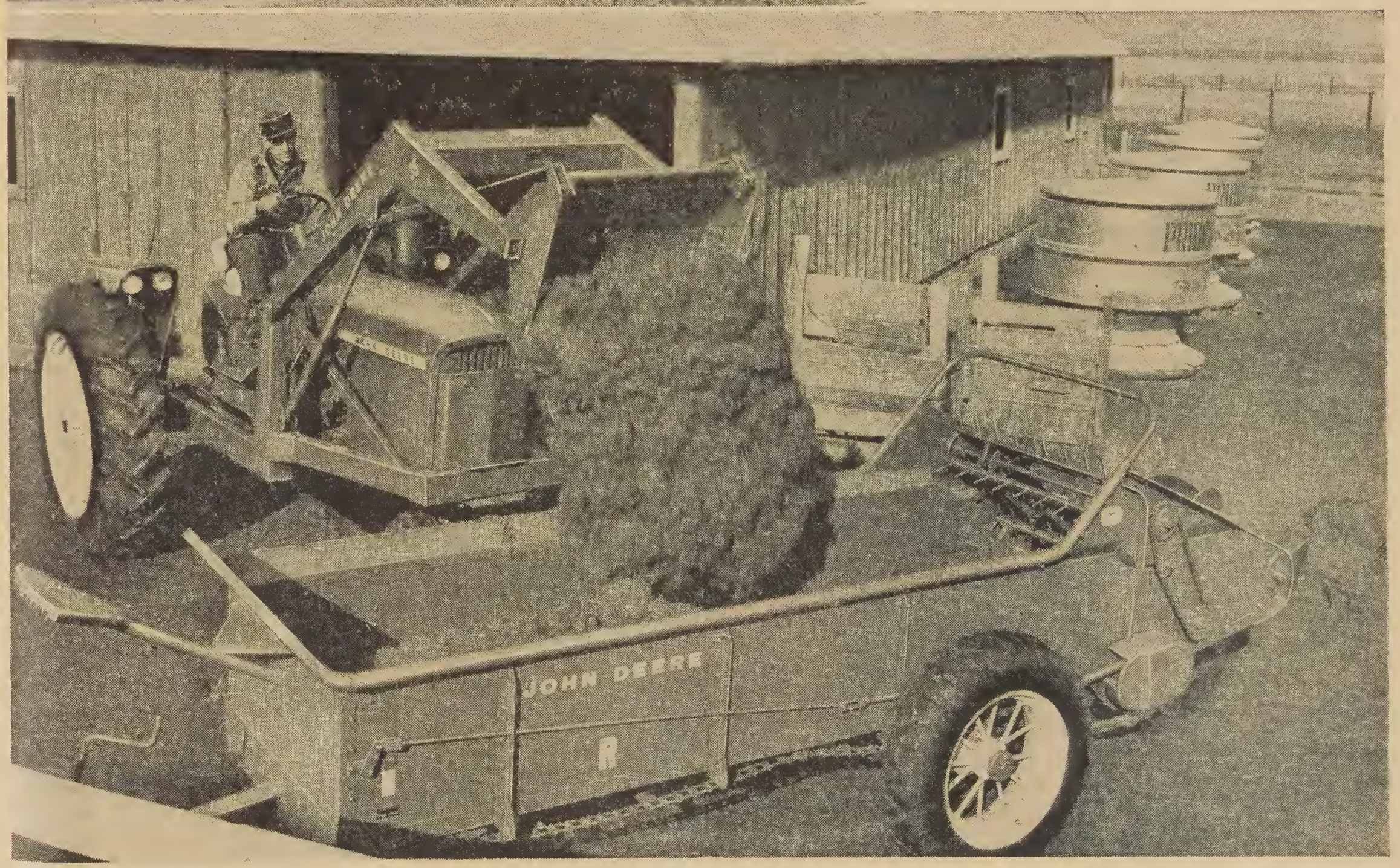
Pit in the Wallis addition is 17 feet wide. Lower crosspieces between pit walls are temporary.





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We hoisted a spreader **to prove a point***



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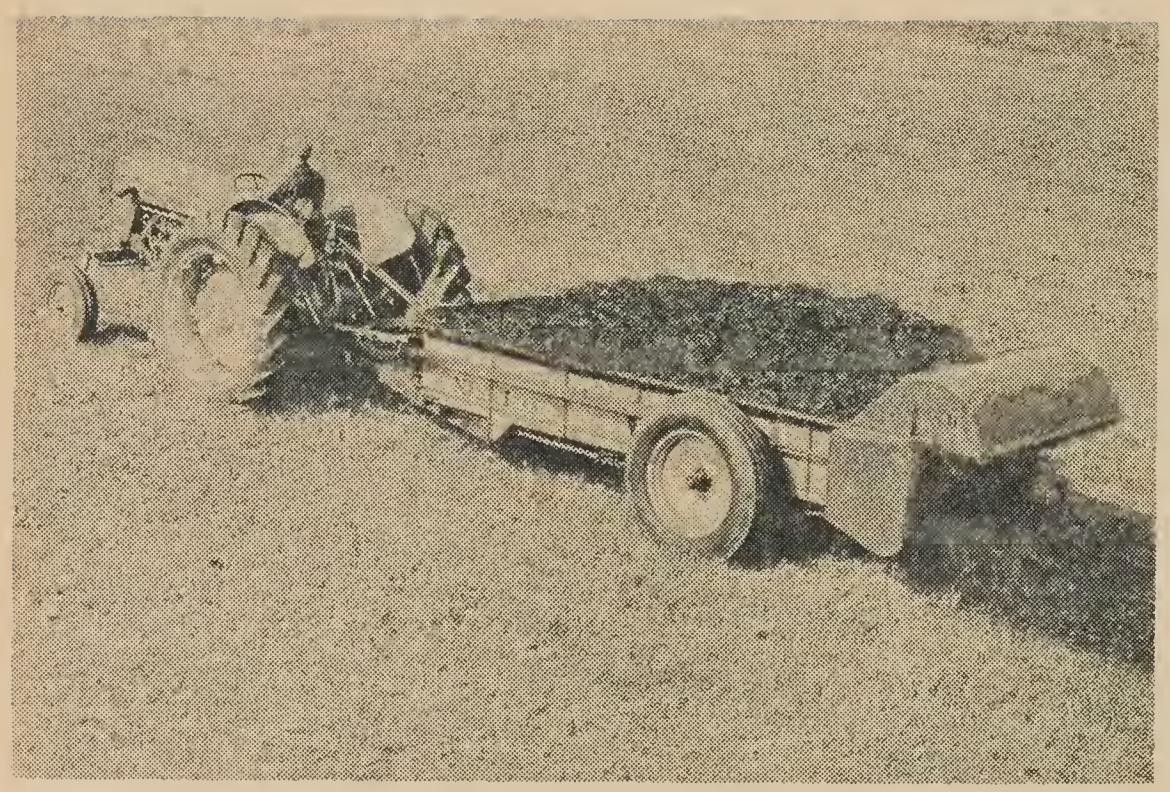
Specially treated wood sides and bottom, held securely by steel side braces and bed, make John Deere Spreaders rigid "one-piece" units . . . no twisting or sagging under heavy loads.

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Is It Really Worth Spreading?

Should all plant nutrients come from a sack --- or is manure a valuable part of the fertilization program?

By Tom Scott and Reeshon Feuer*

THE value of cattle manure on a dairy farm has been questioned for some time; some regard it as a valuable by-product, while others consider it worthless. On some farms it is the main source of nitrogen, phosphorus, and potassium; on others it is only a supplement to the fertilization program. With today's plentiful supply of commercial fertilizers, and the high cost of labor and equipment, it is justifiable to raise the question whether or not it is profitable to collect and use manures for fertilizing purposes.

Studies conducted at a number of agricultural experiment stations have indicated that manures **are** still valuable as a source of plant nutrients and as soil-conserving materials. However, on many dairy farms it is poorly handled and not used to the best advantage.

What's It Worth?

A ton of cow manure contains approximately 10 pounds of nitrogen, 5 pounds of phosphate, and 10 pounds of potash. Estimates are that a 1,000 pound cow will produce about 10 to 12 tons of manure annually. Considering the nitrogen, phosphate and potash content of manure, a ton of it is worth about $2.00 in terms of chemical sources of these plant nutrients. However, in terms of increased **yield**, the manure can be worth several times this amount.

It is unfortunate that only one-third to one-half of the potential value of manure is utilized. A lot of manure is dropped on permanent pastures or uncultivated land. Of the remainder, huge losses occur due to improper handling of the liquid portion, loss of nitrogen through fermentation, and drying and leaching from storage piles exposed to heavy rainfall.

If this manure is piled outside, half the fertility in it may leach away and be lost. It cannot always be applied at the proper time, at the rate, or to the crop that would give the greatest return.

Even though a ton of manure may contain the 25 pounds of plant nutrients already mentioned, they are not all available the first year. Some of the nitrogen and phosphorus is in the organic matter which does not readily break down. The potassium in manure, however, is water soluble, and as readily available as potassium in commercial fertilizer.

Since the release of nitrogen from the organic matter is slow, the total availability of nitrogen from manure may not coincide with the period when the crops need it most. Hence, there can be considerable leaching loss.

Soil Conservation

Many of the benefits from manure are indirect. Dr. George Free, in an experiment on sloping Honeoye silt loam soil at Marcellus, N. Y., applied different rates of manure to study the effect on soil erosion and surface runoff. He found that high rates of manure application substantially decreased total erosion losses.

Fall applications to row crop land is good use of manure because the benefits of protecting exposed soil from erosion losses, as well as from soil structure deterioration, may overshadow nutrient losses. This practice is especially beneficial on sloping fields.

The liquid portion carries about half the total plant food found in manure. This liquid usually contains about 45% of the nitrogen and 65% of the potash that cows excrete; it is very important to save all that you can.

Tight barn floors and gutters—plus adequate bedding—help to reduce losses. Some losses of nitrogen can occur through ammonia evaporation; adding superphosphate daily to the gutters at the rate of one or two pounds of 20% superphosphate per cow helps cut down these losses. This added superphosphate not only cuts down nitrogen losses but also makes manure more balanced in plant nutrients. Unphosphated manure is low in phosphorous.

Hauling and spreading manure daily is usually best; this cuts storage losses and losses from spreading fermented manure. Manure under cattle in sheds can be hauled at convenient intervals; it is tramped on and therefore kept moist and well packed. Little nitrogen and organic matter will be lost through decay in such a situation.

If manure cannot be hauled daily and has to be stored outside, the following points should be remembered:

1. Manure piled loosely permits air to circulate through it, thus nitrogen is lost to the air and organic matter decays.
2. Store manure in a pit with a concrete floor.
3. Put manure in deep compact piles with steep sides and flat tops.

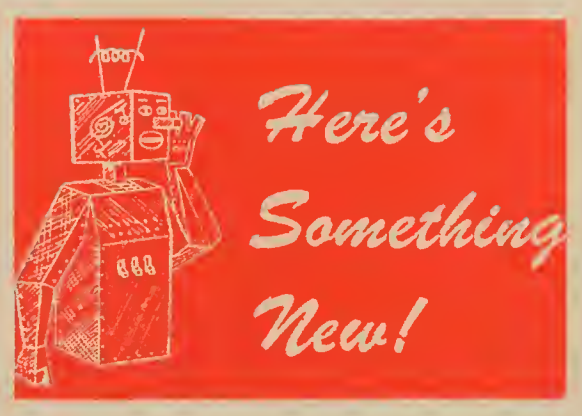
Where To Apply

When considering all field crops grown in New York, corn usually responds best to manure. It is considered best to apply manure to corn ground in fall, winter and spring, then plow in the spring. If it is applied to fall-plowed land, it should be disked in before spring planting. Many farmers apply 10 to 15 tons per acre per year on corn ground.

The second choice for manure application would be grass meadows and pasture; timothy and bromegrass respond particularly well.

Farm manures are not likely to replace commercial fertilizers in a farm fertility program. However, if handled properly and applied to the right crops, manure **is** worth spreading.

*Agronomy Department, Cornell University



Fertilizer "Pills" — They won't be available commercially for some time yet, but experiments have shown that fertilizer released more slowly from plastic capsules may be worth the extra processing. There is no over-abundance immediately after application, no loss of what cannot be used immediately, the type of soil has no effect on the rate of release, neither does excess water in the soil. In fact, only when the moisture level dropped to less than one-fourth of field capacity did the rate of release slow down.

New Panels —USDA engineers have come up with a building wall panel composed of a two-inch layer of plastic sandwiched between half-inch layers of reinforced Portland cement. The panels are planned for construction of milking parlors, chicken houses, barns, and other enclosed livestock buildings where insulation is necessary.

Although more expensive than concrete blocks for buildings of comparable size, the engineers say that total building costs would be comparable because a panel building can be erected about four times faster than a block building. A release can be obtained for the asking from U. S. Department of Agriculture, Washington 25, D. C.

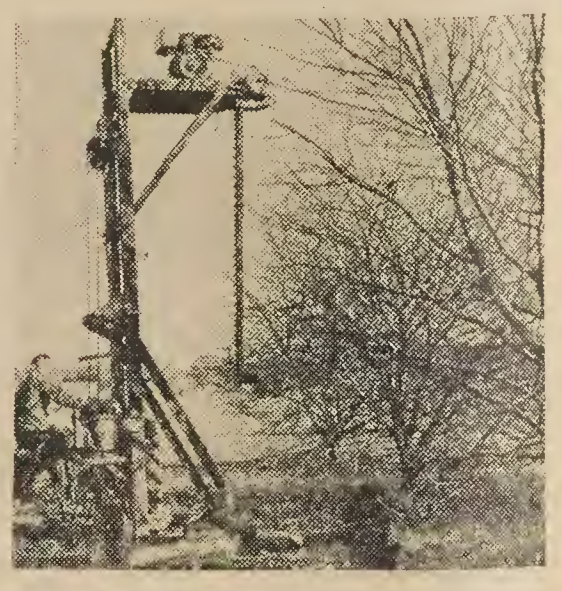
"Live" Insecticide — Because chemicals don't provide the complete answer to pest control, because of the residue problem in some instances, because insects develop immunity to them, and for other reasons, interest in the use of microbes for insect control has been renewed. In this connection, Rohm & Haas, Philadelphia, Pa., has recently introduced Bakthane L-69, which has shown promise in the control of insects on a number of important food crops.

Bakthane is a microbial insecticide consisting of live spores capable of infecting certain insects and causing fatal disease. Insects susceptible to them include the cabbage looper, imported cabbage worm, artichoke plume moth, tobacco budworm, and tobacco hornworm.

Bakthane may be applied as a spray or a dust, or, for certain applications, as a bait. It can be handled in the same way as conventional chemical insecticides.

Fruit Mower — Adaptation of a new fruit-tree hedger to use in pruning apple and peach orchards marks a step forward in developing new, time-saving, and less costly methods of producing these fruits, the U. S. Department of Agriculture reports.

The tractor-drawn hedger-pruner is used to trim tops and sides of trees into a square-cornered hedge. Such hedges, which will replace rows of individual trees in experimental orchards, are expected to increase greatly the efficiency of orchard maintenance and fruit harvesting.



Here's a quick haircut for fruit trees—top and side. —Photos by USDA



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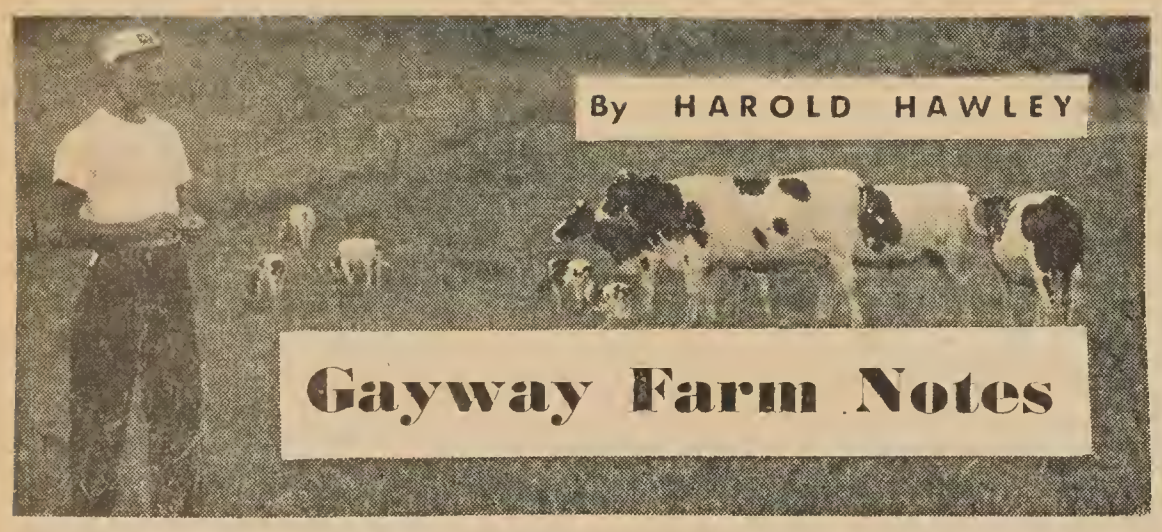
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HAYING WAGONS

THANKS to some good suggestions from readers with previous experience, plus some suggestions from our local welder—and a notion or two of our own—we have been using some very satisfactory hay racks to catch and carry hay from a bale thrower. The sides are eight feet high, with a 3 foot wide door on each side. The door is 5 feet high and is closed by a piece of chain which is crossed back and forth from hooks bolted on each side of the door. The chain is held tight by inserting a link in a notch as wide as the chain and as deep as a link. The chain stays hooked in this notch, yet can be unhooked by simply lifting it up and out of the notch. We like this arrangement, as we can pull right into place at the elevator, unhook the chain, and go to unloading.

Not the least of our pleasure with this system comes from the ease of unloading. From the doors to the farthest bale is only a couple of steps. Sure beats that old business of dragging the last of the bales the length of a 16 foot rack!

Another thing we learned too late —bale thrower or not, is that we should have shortened our bales about 4 inches years ago. A slightly shorter bale is so much squarer and nicer to handle. We would leave our baler set as it is even if we were loading bales as we did in the past.

The bale conveyor which now runs the length of the barn has been a great labor saver—yet, like all mechanical tools, it occasionally needs attention. If the chain comes off while we are unloading, a lot of bales can get stacked up and cause trouble before the man in the mow can shut off the elevator and conveyor. We finally decided a couple of dry cell batteries and a buzzer were a necessary part of the equipment. The buzzer and cord must be free to be moved along wherever the hay is being stored.

The bale thrower and mow conveyor—plus the fact that not a minute of time was lost due to rain—meant the earliest end to haying in fifteen years, even though we had less manpower than usual. We are tickled with the bale thrower, especially at chore time. Part of our help leaves at 6 p.m., and someone must be in the barn doing chores. But, given some empty wagons, one man can bale another 8 or 10 tons of hay after the others have left the field—and this is really a big help.

DROUTH'S LESSONS

Much of what one's hindsight reveals about drouth is perfectly good, but useless information unless one could tell soon enough that a dry spell was going to continue.

We were badly scared that we had slipped up on some of our weed killing at times this year. Some fields, or parts of fields, sprayed early or late in the day, showed quick kills—yet other weeds were three, four, or five days giving up. The only conclusions we could draw were that the weeds were growing slowly because of the dry weather and that the leaf pores were closed up to prevent loss of water during the heat of the day. All is well that ends well, but that sinking feeling which comes from seeing weeds still up and doing is to be avoided — it's hard on one!

WEED SPRAY

Due to lack of rainy days we were late in clipping some pastures. A couple of permanent pastures with little or no legumes were hit with 2,4-D and the results were pleasing. It was a time-saver, and may be worth doing again another year.

BIRDSFOOT TREFOIL

When the contractors seeded the right-of-way for a new road nearby, they used some trefoil. Two lawns we know now have patches of trefoil along the road as a result. With all the other grass turned brown, the trefoil blossoms stand out like a flower bed. Maybe the seedsmen have been missing a bet. At any rate, we're going to try a couple of spots in our lawn.

VACATIONS

I'm going to assume that no one questions the value of a vacation for any of us. However, all too often farm people can't seem to get away. There is no question but that it takes some doing to work out arrangements to have the cows cared for, and to time the vacation between peak work loads, but it can be done.

Our friends and neighbors, the Stewart Whitman's, decided to go to Colorado Springs to see their son graduate from the Air Force Academy the first week in June—an absolutely impossible time for a farmer to be away! But they decided to go, planned accordingly, and had a wonderful trip. They decided that as long as they were there, they would take in Yellowstone Park, the Grand Teton Park, the Black Hills, etc. So they had a real vacation.

Another neighbor, Vernon Blumer, has a definite date with some fish in Canada the day he finishes combining oats. Because he has made up his mind, and is working out the necessary arrangements, he will go. How about your plans?

When we go it usually involves about 3 weeks—to visit my wife's folks in Wyoming. This means we don't go as often as we'd like, but go we do—and will. The whole secret is to work out arrangements with reliable people and then get so far away you can't do anything about it. Then you quit worrying and have fun. For us, it's no good to be too close. One year I ended up coming home from the lake for milking twice a day even though it would have been done without me. It's a little deflating, but true, that someone else can step in and run the show pretty well while we are gone —and it is really good for us to get away for a while.

RYE GRASS

Only a born optimist or a fool would sow rye grass in the corn when the soil is this dry. However, maybe it's better than in some years when there has been enough moisture to germinate the seed, but not enough to keep it growing. Anyway, we've been cultivating in a cloud of dust and broadcasting the seed on the parched ground, where it will lie until we get the long-awaited rain. It's a gamble perhaps, but the winter pasture for the heifers, and the erosion control a good cover of rye grass gives, make it seem foolish not to sow the seed.

HAYING PROGRAM

Once in a rare while a plan works "according to plan". It's been a spell, but this happened to us with haying this year. We started with orchard grass and DuPuits alfalfa mixed, then a field of DuPuits (the timothy originally sowed with it apparently couldn't stand the competition). Following these fields, we tackled some new seedings which were Narragansett or Vernal alfalfa, Climax timothy, and a little Penscott clover; next a field of Penscott clover and Climax timothy, and lastly birdsfoot trefoil, alfalfa (Narragansett) and Climax timothy.

Possibly had we been a week earlier all the way along the line it would have been better, but in general this was a very satisfactory arrangement, as we seemed to get to the different varieties about as they got ready.

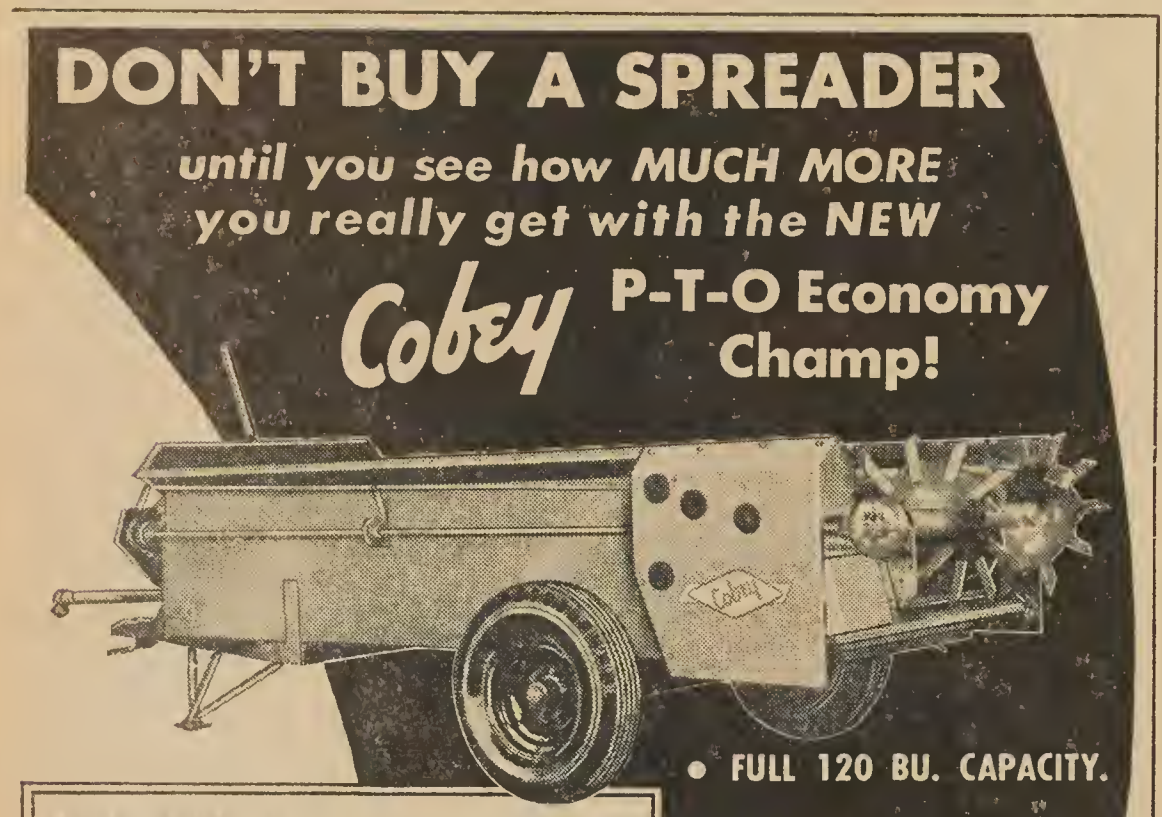
We have learned the hard way there is a limit to the amount of DuPuits we can handle on time. Now with Climax timothy maturing later than the regular variety there is a real place for it and trefoil even on a farm which grows alfalfa easily.

SEAT BELTS

About a year ago we got seat belts for the front seat of our car. Contrary to expectations we found them no nuisance — quite the opposite. They are a definite support on a long trip. When we changed cars we felt uneasy riding without seat belts until we could get some installed.

Mighty little enthusiasm for seat belts from son Bruce, though, until we got a third one for the front seat. It is between the other two! I guess you can't blame a lad for not wanting the young lady strapped in away over there on the other side of the seat!

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NEWS and VIEWS from New York and Pennsylvania



Paul H. Margolf, (right) professor of poultry husbandry at the Pennsylvania State University, was named "Poultry man of the Year" by the Pennsylvania Poultry Federation. Plaque was presented by Homer J. Bicksler, Palmyra, (left) last year's winner.

Raccoons Beware! — The New York State Raccoon Hunters' Association has offered the services of the members of their Association to help farmers alleviate damage by raccoons. Check with your county Farm Bureau president.

Scholarship — Leslie G. Nuffer, Washington County agent, has been named the recipient of the 1962 Dow Scholarship. The Dow Chemical Company gives a three week study tour of outstanding farms, agri-business establishments, and extension demonstrations around the county.

Show — Over 500 animals are expected to compete for more than $8,000 in premiums at the 12th Annual NYABC Cattle Show, held in Ithaca August 24-25.

Officers — New officers of the State Association of Pennsylvania Dairy Herd Improvement Association Supervisors are: Arthur O. Clink, Springville, chairman; Daniel Nicheporchek, Coudersport, vice chairman; Miss Lorene Dunn, Coudersport, secretary; and Tom Richards, Paoli, vice secretary.

The Pennsylvania Poultry Federation recently elected the following officers: Robert Houser, York, president; Harry Ulrich, Harrisburg, first vice president; Paul Konhaus, Mechanicsburg, second vice president; John Coperhaver, Elizabethtown, re-elected secretary; and Charles Phillips, Pillow, re-elected treasurer.

Committee — Secretary of Agriculture Freeman has appointed a committee of milk producer representatives to review the effects of the recent Supreme Court decision on compensatory payments. Named are: Lloyd B. Wescott, Rosemont, New Jersey, chairman; Stanley H. Benham, Millbrook, New York; Allen H. Ostrander, Theresa, New York; and Kenneth A. Shaul, Cobleskill, New York. All were members of the committee which studied the operation of the New York-New Jersey order when the present provisions were instituted.

Pageant — Devotees of the steam engine will enjoy the Pageant of Steam planned by the New York Steam Engine Association for August 9-12. There will be grain threshing, lumber sawing, shingle making, antique cars, stationary and portable steam engines—all at a location one mile south of Thruway Exit No. 44, near the new Race Track on the Victor-Canandaigua Road.

Feeder Sales — Approximately 2,000 feeder calves are expected to be consigned to the five regional feeder calf sales this fall, as follows: October 25, Dryden; October 27, Altamont; October 31, Bath; November 3, Pike; November 10, Caledonia. All calves will be sold in uniform lots according to breed, sex, weight, and grade. Sales start at 1:00 p.m., after trading demonstrations and contests.

For more information, contact your county agricultural agent.

Appointed —Donald Jones, dairyman at Homer, N. Y. has been named by the Eastern Milk Producers Association to the board of directors of the American Dairy Association and Dairy Council of N. Y.

Sour Cherries — New York State growers and processors of sour cherries have voted to continue the assessment of $3 a ton to advertise and promote the 1962 crop. Cherries sold for eating as fresh fruit, or used for juice, are not subject to the assessment.

Members of the advisory committee for the current year are—Producer members G. Norman Smith; Hudson; Jack Pearson, Rochester; Frederick W. Button, Sodus; R. S. Kill, Lockport; and Allan Mitchell, North Rome. Processor members: G. I. VanEenwyk, East Williamson; N. A. Waterman, Ontario; Harlan Harvey, Albion. Consumer member: Mrs. Stephen McNall, West Henrietta.

Committee — Swine feeders, breeders, brokers, packers, the Extension Service, veterinarians, educational institutions and the regulatory agencies of the State and Federal governments are all represented on a 27-member Swine Herd Health Committee recently appointed by New York State Commissioner Wickham. Chief purpose, the eradication of hog cholera.



BIG TROUBLE

A tractor accident. A serious, long-term illness. Suddenly you need cash. Lots of cash. Where are you going to get it? Ordinary health insurance won't give it to you. That only takes care of ordinary problems. You need *big trouble* insurance . . . the kind that pays and pays until you're out of the woods.

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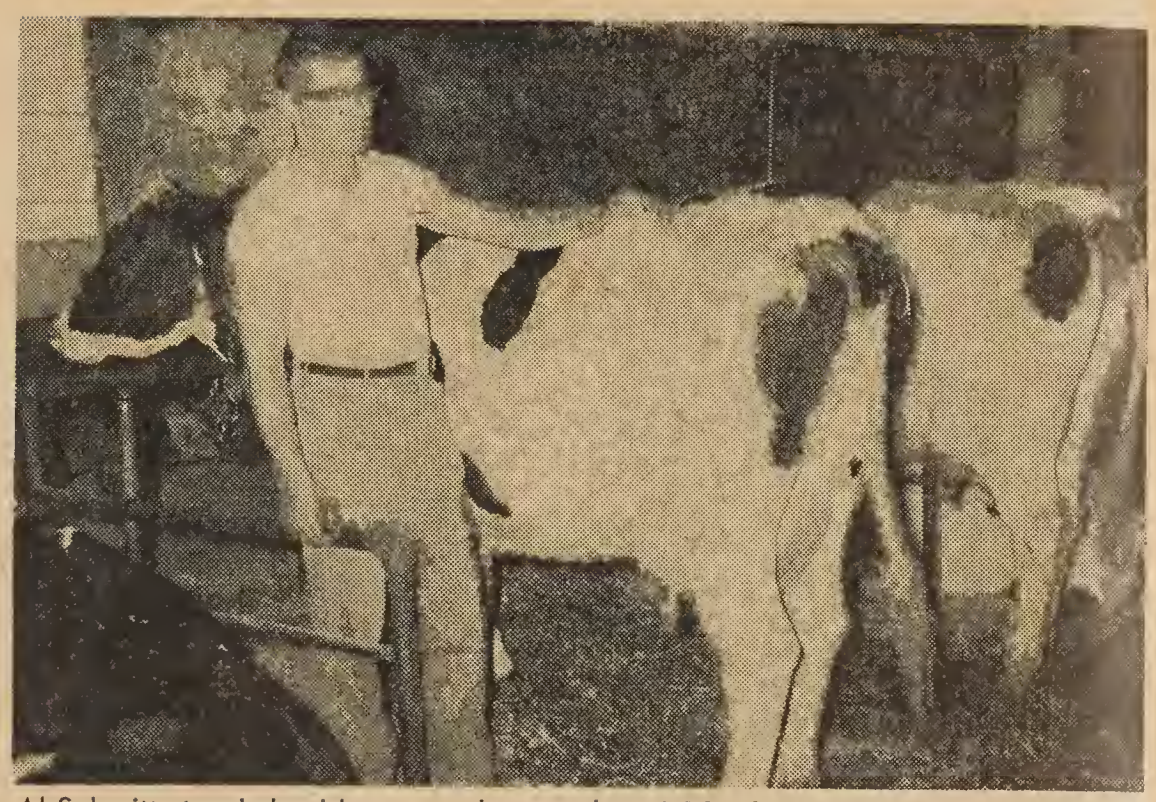
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MORE FARMERS BUY BADGER SILO UNLOADERS THAN ANY OTHER



Al Schmitt stands beside a cow that produced 12,680 pounds of milk last year, has already put 13,500 pounds in the pail in 7 months this year.

More Milk From Fewer Cows

Here's how One Dairyman is Lowering His Cost of Producing a Hundred Pounds of Milk

By HUGH COSLINE

MORE MILK from 35 cows than from 58? It sounds fantastic — but Alfred Schmitt of Medina, New York, is doing just that, and because production costs per cwt. are less, his net returns have jumped.

"I had been on this farm five years," he said, "and I was beginning to think of getting out. Then my local feed salesman, Dick Weaver, suggested I enroll in their 'Profit Feeding Plan,' and I agreed. It worked out so well and so profitably that now you couldn't pry me away from this farm. And in addition to better returns, it has made the job intensely interesting."

More Grain

Later in that same year Weaver told Al that herds were needed for conducting a study on heavy grain feeding of dairy cows. Al agreed to try this on six fresh cows.

The feeding experiment involved giving these cows all the grain they would eat, then cutting back gradually to see how soon production would drop; this is known as challenging the cow to see what she will do. Once she established her maximum production level, Al began to follow a feeding chart based on Morrison's "Feeds & Feeding," and gradually reduced feeding levels (about 1 pound per day) to the cow's needs.

Some cows ate as much as 65 pounds of grain a day, which, of course, wasn't profitable. After this experience, Alfred concluded that 30 pounds per cow per day is about the maximum for profitable feeding in his herd.

Another important conclusion from the experiment was that dry cows, and cows in the early stages of lactation, were getting too little grain, and those farther along in lactation were getting too much. Al isn't buying any more grain in a year—he's just feeding it to fewer cows and managing the feeding better.

"Let me show you a few records," he said, bringing out the DHIC book. "Here's a cow that gave 12,680 pounds of milk last year; this year in seven months she has produced 13,500. Here's another—her last year record was 6,700 pounds; this year her record in seven months is 13,700 pounds. Still another gave 10,350 last year, and this year in seven months her record is 11,000 pounds. Production has jumped from 25 percent to as much as 50 percent for some cows.

"Last year," he continued, "production per cow averaged around 10,000 pounds. This year, with 35 cows, we expect to average 12,000 pounds, and in 1963 I am aiming for 14,000 pounds."

In studying Al's results, it's important to remember that he figured he was doing a good job **before** the test; now he knows that it wasn't good enough. Four years ago, after a year with a herd of 58 cows, he culled 21 for low production. Most of those he kept are still in the herd. They are grades, and the jump in production was **not** the result of buying better cows!

Let's take a closer look at Alfred's program. Dry cows get a minimum of 5 pounds of grain a day; if they are thin they may get as much as 10 pounds. In the early stages of lactation they get 2 to 3 pounds more grain than standard DHIC recommendations. They also get 7 to 8 pounds of hay, plus a minimum of 21 pounds of grass silage. Recently purchased and not yet installed is an automatic bunk feeder to supply silage in summer. At times, also, the herd gets "greenchop." Pastures are rotated.

More individual attention to cows pays off at the milk pail. "This is now a one-man farm," said Alfred. "I hire some day help, but 35 cows are too many for one man if he gives them the attention they should get. This barn will hold 52 milkers — and I plan eventually to fill it and make it a two-man operation."

Some Conclusions

My visit at the Schmitt farm was intensely interesting, and naturally I arrived at a few conclusions. First, I realize with greater clarity how rapidly agriculture is changing. A farm is no place for a man with a strong back and a weak mind.

Second, I saw how important it is for a man to be interested in his

(Continued on Opposite Page)

Drought Directions

WHETHER or not the Northeast gets more rain soon, there will be problems for some dairymen in deciding how best to feed their herds in the months ahead. Boyd Pack, climatologist at Cornell University, isn't very optimistic when he says that "the July 15-August 15 outlook for New York State is for below-normal rainfall, with the possible exception of the extreme southwest corner, where the outlook is for near normal precipitation."

With the help of College specialists like Sam Slack and Walt Griffeth, also of Cornell University, plus comments from others, we've pulled together some ideas of things farmers can do:

A. Crop Practices

1. There is less likelihood of injuring alfalfa by cutting in the fall after a dry summer than if the season had been normal.

2. Fertilizer applied from now on won't work any magic for this crop season, but "O goods" (0-15-30, for instance) may help next year's stands not previously fertilized this year if applied before September 15.

3. Consider planting rye for late fall and early spring pasture to splice out short roughage.

4. Use particular care during dry periods in grazing sudan grass to avoid prussic acid poisoning. Sorghum should not be grazed.

5. Summer seedings shouldn't be made in a dust pile. Wait for some rain, then firm seedbed well with cultipacker. Birdsfoot isn't recommended for summer seeding because it has much less chance to get started than alfalfa, timothy, or bromegrass.

6. It's still good advice to plant winter wheat as soon after the Hessian fly-free date as possible.

7. Remember that nitrogen gas poisoning of a person in a silo is likely to be more common during dry times, because nitrates accumulate in slowly-growing plants. When filling, always run the blower a few minutes before going into the silo.

8. If dry weather continues, there may be some corn that will actually die. Put it in the silo before it does this, even if it means cutting with a grass head on the chopper.

B. Feeding

1. Get rid of all prejudice about certain kinds of feed causing certain problems. For instance, the idea that too much corn in the grain ration causes "caked udders" is as old as the hills — and as obsolete as a whiffletree. Check alternatives for replacing roughage on the basis of cost per pound of TDN.

2. Remember that a dairy cow needs 5 to 8 pounds of "hay equivalent" per day in some form of roughage just to keep her innards working properly. Beyond that, it's a question of whether it's most economical to buy hay or go to one of the many substitutes for roughage. As a thumb rule, a ton of hay has the feeding value of about one-half to two-thirds of a ton of grain. If a standard 16% dairy ration costs $70 per ton, you can't afford to pay more than $38 a ton for good hay, or $29 for fair hay.

3. Line up for silage some neighbor's corn he had planned to pick for grain. There's more TDN from an acre of corn silage than from that same acre's production of dried shelled corn.

4. Corn or grass silage can be fed as the only roughage to dairy cattle; very high levels of silage feeding plus a minimum amount of hay have also been used successfully.

5. Cull herds heavily. Remove the animals with chronic udder trouble, "problem" breeders, and low producers. Consider having vet check all cows for pregnancy and reproductive disorders. Cull under-sized or underdeveloped young cattle.

6. Yearling heifers will stand roughing through the winter on shorter rations than usual, but don't plan to scrimp much on feeding calves or bred heifers.

7. Many dairymen will be moving toward a feeding program much higher in grain than usual. If it's done on the basis of lowest cost per pound of TDN, and if cattle are given this extra grain in accordance with recent recommendations, dairymen will find the shift profitable.

8. Instead of grazing meadows, consider conserving forage by running it into the silo or feeding green-chop rather than accept wastage that goes with pasturing.

9. Check with your county agent on details. In New York, a Drought Emergency Committee has been named by the Director of Extension, Al Johnson, to coordinate information. Agents in other states are equally prepared to offer helpful suggestions.

10. Check with your local ASC office regarding the opportunities offered farmers in counties designated disaster areas. Briefly, they include:

Low interest rates on loans; opportunity to harvest hay from diverted acres; and the purchase of surplus grain at 75 percent of support price.

MORE MILK FROM FEWER COWS

(Continued from Opposite Page)

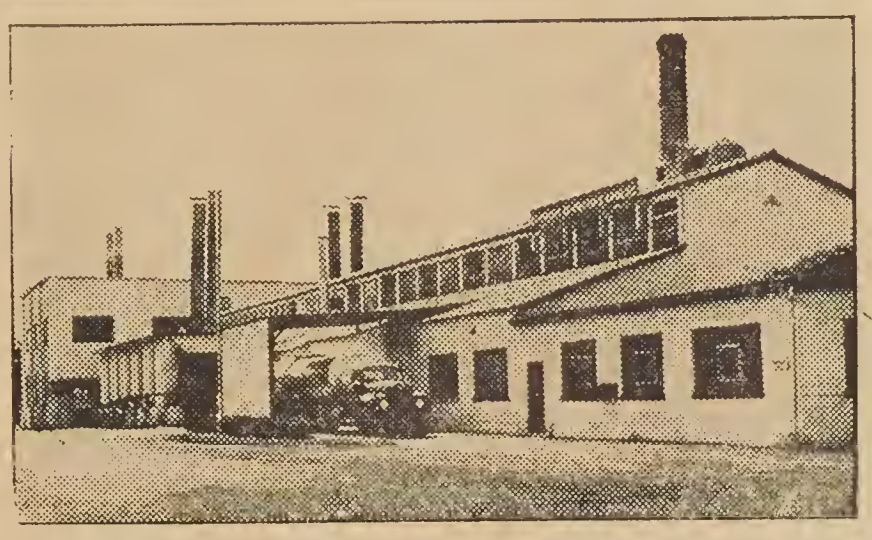
work. I could not possibly transmit to you the enthusiasm Al has for his job.

Third, I was much impressed by an observation Al made about work. "At first I worked 'til midnight and got up at 4:30. Then my wife and I got some sense, and decided to call a halt. We still work long (but not so long) hours, and we take Sundays off except for chores."

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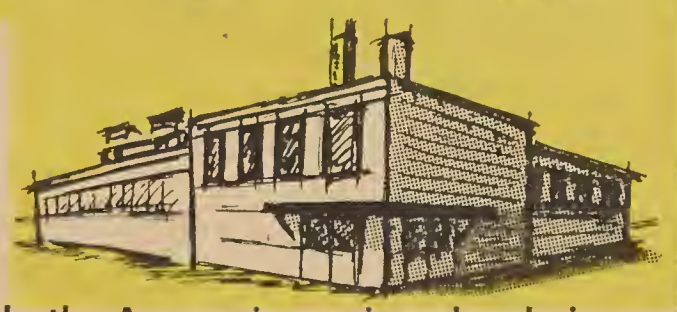
Above all the full-scale co-op assures its members of a continuous market which they must have for their milk. Operating with full marketing facilities, the League also has established a sturdy, effective relationship with buying dealers founded on mutual respect and experience.

Does a full-scale cooperative help farmers? Ask League members in any of our 531 locals in New York, New Jersey, Pennsylvania and New England. These 17,000 dairymen (and their wives) can tell you how much their organization's protection of market means to their way of life.

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2. Constantly seeking to improve marketing conditions for dairy farmers, the Bargaining Agency keeps a watchful eye on the operation of the Marketing Order to see that it functions properly. Currently the Agency has helped secure a Federal hearing on regulation of producer-dealers and another on compensatory payment provisions. Both these issues are of great importance to the dairy farmer's income.

It is this kind of work and effort that makes dairy farmers aware of the benefits they receive from membership in cooperatives federated with the Bargaining Agency. If you're interested in an organization that puts your interests first, join a Bargaining Agency federated cooperative today.

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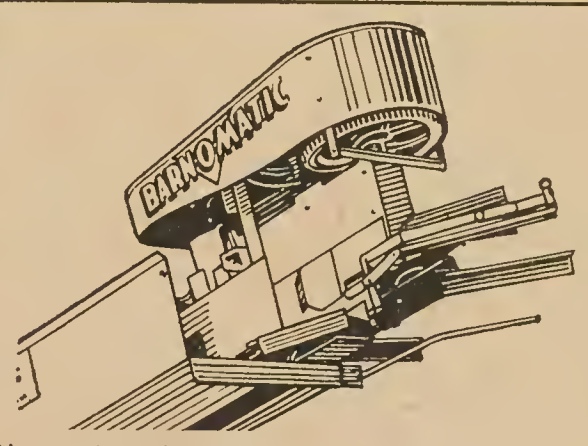
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Potato Harvest Hints

IN COOPERATION with Cornell potato specialist Elmer Ewing, Isa Liddell of the editorial staff has pulled together the latest ideas for spud harvesting and storage. Starting with vine-killing, here they are:

If you prefer to kill the vines mechanically (that is, by beating them) do it enough before harvest to give the tuber skins time to toughen. Otherwise there will be more skinning, bruising, feathering, and reduced storage life. Killing the vines ten to fourteen days ahead of digging will give the skins a chance to set, and will thus reduce the risk that late blight spores will enter a break on the skin surface.

This brings up another point: Be sure to continue applying fungicide to your fields on a regular schedule even after vines have been removed mechanically. The green stubble can still support the growth of the late blight organism, and unless a fungicide protection is maintained after vine beating there is danger that late blight tuber rot will cause serious storage losses.

This is one reason why a chemical vine killing is much superior to mechanieal killings. Once a chemical top killer has been applied, fungicides are no longer needed. The most popular chemical killer is sodium arsenite, which should be sprayed on vines ten to fourteen days before harvest. Because the concentration of active ingredient varies widely from one commercial product to another, it is essential to find out how much arsenic trioxide there is per gallon in the material you are using. Aim to apply from 4-8 pounds **arsenic trioxide** per acre. The lower rates should be sufficient in warm weather with normal top growth. Higher rates will be necessary in cold, rainy weather, when weeds are a problem, or when top growth is especially heavy.

The addition of No. 2 furnace oil at 2 gallons per acre results in a more effective kill of grassy weeds. (Mix the oil with the vine killer befor adding it to the water.) Most growers prefer to use a mechanical beater just before harvest after vines have been killed ehemically.

Try to use just enough vine killer to obtain a gradual, complete kill without killing vines too rapidly. This will result in less danger of stem-end browning, and some believe that it may also improve specific gravity. In any case, F.D.A. regulations prohibit the use of sodium arsenite closer than seven days before harvest, and the use of more than 14.5 lbs. arsenic trioxide per acre.

Early Crops

For early-harvested fields, killing the vines much ahead of digging may pose a problem. The yield of potatoes per acre and the total dry matter content of the potatoes increase very rapidly during the latter part of the growing season, and excessively early killing may lead to reduced yields and lower specific gravities.

But against this may be put the fact that proper timing of vine killing gives a lower percentage of misshapen and oversize tubers, resulting in a higher yield of No. 1 grades, even though the total yield may be lower. In any case, the interval between spraying and digging should be at least a week.

Harvesting Tips

Never dig potatoes when there is frost on the ground; wait until the ground warms up. The potatoes exposed to temperatures slightly below freezing will recover without injury if left untouched during the warming-up period.

Prevent a too-rapid operation of the digger. Experience has shown that digger chains operating at speeds in excess of 150 feet per minute will cause a considerable amount of mechanical injury. Ground speeds should not exceed 1½ miles per hour to minimize injury. Rubber covering on the links of the digger will also help reduce the amount of injuries, particularly when the soil is dry. Use shakers only when absolutely necessary due to wet soil conditions, as the extra "bouncing" increases bruising.

Move the potatoes out of the field as soon as possible during hot, bright, dry, windy weather (above 80° F) to avoid scald and browning.

The maximum speed for convey-

(Continued on Opposite Page)

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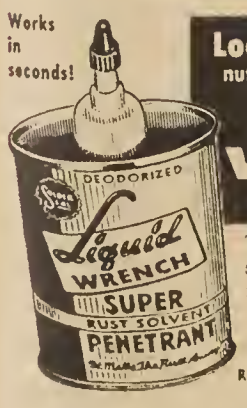
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National Grassland Field Days

THE Milton Hershey Farms, 15 miles east of Harrisburg, Pennsylvania, will be the scene of the first National Grassland Field Days and Conference on August 15-17 The event is sponsored by the American and Pennsylvania Grassland Councils.

Starting off on Wednesday morning, August 15 (Industry Day) with speaking sessions by grassland experts from various universities of the United States and Canada, the afternoon will be devoted to field demonstrations of farm automation equipment for materials handling.

The program will include 100 acres of forage harvesting, and the North American Hay Show, at which farmers from the United States and Canada will compete.

Thursday, August 16, has been designated Centennial Day. There will be more speaking sessions in the forenoon, then twin salutes are planned to mark the one hundredth anniversaries of the founding of the U. S. Department of Agriculture and the Land Grant College system.

Visitors will have an opportunity for a first-hand look at the quaint customs and lush agriculture of the famed Pennsylvania Dutch country. A dozen buses have been chartered, and planes will be available at the Hershey airstrip (all at nominal commercial rates) to make possible quick trips over and through the surrounding countryside. One bus route will go through the historic Cornwall furnace, to the New Holland experimental farms and other points of interest in Lancaster County's "Garden Spot."

Another tour will take guests to visit typical dairy farms in adjoining Lebanon County, see the large-scale Millarden steer-feeding operation, and a poultry farm that uses dehydrated alfalfa for feed.

Gubernational candidates Richardson Dilworth and William Scranton will be present on Friday, August 17 (Pennsylvania Day), and the Field Days will conclude with the 1962 Pennsylvania State Contour and Level Land Plowing Championships.

POTATO HARVEST HINTS

(Continued from Opposite Page)

ors and grading machinery should not exceed 50-70 feet per minute. It should be remembered that the dirt cushion on the digger chain is lacking here. Use rubber pads under sacks at the end of graders, and at any other location where potatoes would otherwise come in contact with hard surfaces.

After harvest, hold the potatoes at 60-70° F., and at a high relative humidity (preferably 90 percent for at least ten days to two weeks) before dropping the temperature in storage. This gives time for corking-over or healing of injured tissue. However, if a serious rot potential (late blight, ring rot, field frost, etc.) exists, drop the temperature to 40° F. as quickly as possible to reduce soft-rot breakdown.

DON'T FORGET!

What used to be Potato Field Day, now called Farm Equipment Field Days, will be held August 15-16 at the Colby Homestead, Spencerport, N. Y.

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Personal Farm Experience

Greenchops Oats

OATS ARE an important crop in our rotation as well as valuable for dairy feed. We have used them for greenchop for the past two years in the early dough stage; balance have been combined.

This last fall I changed from ground oats to crimped oats in the dairy feed. This change makes feed run better from the bulk bin, is less dusty, and seems to be more palatable, giving the ration a bulky texture.

We're planning to continue oats in the rotation because we can normally raise yields of 90-110 bushels per acre; also they are an early spring crop and can be handled with a minimum of labor. As for varieties, we have used Garry almost exclusively after its introduction—prior to that Clinton-Mohawk. This year I planted two acres of Russell certified seed for an experiment.

Lodging was a problem in 1961, and I would try any variety that indicates a stiff straw and lodge resistance. — *Glenn W. Lawrence, Corfu, New York.*

Oat Problems

We have grown Garry oats for the past several years. We are not satisfied with them but they seem to be the best variety to date. There has been considerable difficulty with lodging and uneven ripening. The majority of our oats has always been harvested for grain (combined the last five years; threshed previously). When pasture is broken up and is ready for reseeding, oats are used and pastured off.

It has been our feeling that the grain and straw are more valuable in this form than to use the crop some other way. Poor hay makes excellent bedding when chopped and free of weeds, but creates a labor problem in handling, thus more or less ruling it out of our program. Straw seems to be the logical bedding material in our setup.

Animal nutritionists of the College of Agriculture recommend oat-crop silage to obtain the highest TDN from oats, but many farmers in this area have had palatability difficulties with oat silage. We do not anticipate any program change at this time.

We have not considered omitting oats from the rotation. Our average yield for the last few years has been from 75-90 bushels per acre, which I feel makes oats a practical crop to raise. Perhaps other grains are better TDN-wise in a dairy ration than oats, but seem to be more expensive to buy at the time when they must be purchased.

Considering the government "push" of the feed grain program, this oat ground should not be planted to corn. With our own grain, as we use it, our dairy ration costs us $2.87 per cwt., figuring oats at $50 per ton and corn at $35. All angles must be considered to produce milk at $4 and keep our heads anywhere near the surface.

Oat variety recommendations have been followed as they came along—Vicland, Clinton, Rodney, and Garry—but there is still something to be desired in the field. The Clintons were good until disease caught up with them. When a variety is developed which is resistant to all diseases, stands up like a weed, and is capable of producing 100 bushels per acre, it will really be something! Probably by this time there will be synthetic milk and we will only need oats for "Cheerios." — *Asher Goodale, Cortland, N. Y.*

Grassland Farming

We operate a 487 acre farm carrying 78 milk cows near South New Berlin, New York. In 1961 we put in 18,240 bales of hay from two cuttings.

Ours is a grassland farm — no plowing. Grass seed is put in the barn gutter in winter so it will go on meadows with the manure. In some fields a mixture of birdsfoot trefoil, ladino clover and timothy is used this way; on others timothy only is applied.

We use about 100 tons of lime every year, and also put on plenty of fertilizer. The fertilizer program is tailored to fit the field. On some land we put on 200 pounds of 10-10-10 per acre plus manure, then take a cutting of hay and follow immediately with another 100 pounds of 10-10-10 to push second cutting. We also use 0-20-20 on some fields at about 300 pounds per acre.

Under our conditions, we think that grassland farming is more profitable than growing crops requiring plowing. Machinery investment is low; crop yields are high because of fertilization. — *Pieter Bootsma, South New Berlin, N. Y.*

Barn Addition

In 1961, we added 60 feet on the end of our dairy barn to give us a more efficient arrangement, as well as to provide room for more cows. The new setup has a gutter cleaner, and 10 cows formerly in another part of the barn were put into the two long strings of cows in the new arrangement. This addition, allowing us to go from 38 to 46 milkers, meant that we could justify two men —myself and one full-time hired man.

The cows were head-to-head in the stable as it was, and we left them that way although we considered reversing them when we made the addition. We have been reading so much about mechanized feeding in farm magazines that we felt the advantages of having the cows head-to-head might be even greater in the future. The platforms are now six feet long and cows are held by neck chains snapped to a chain link welded to the 1½ inch water pipe. Oak 4 x 4 posts are placed every five feet along the curb behind the manger and the water pipe is fastened to these posts.

The lumber for the addition came from our own woods, including the truss rafters that have eliminated posts in the hay storage area over the stable. Side walls are cinder block.

Since we made an expansion in our herd in 1961, we're sure hoping that it will not be the base year if milk production quotas are adopted. We made the change for greater efficiency and being forced to go back would deny us much of the benefits gained from our barn change.
—*Richard Perry, Ithaca, New York*

DAIRYMEN AT THE CROSSROADS.....

MUTUAL ACTS:

Most of the 58 Member Coops. have endorsed a two-price plan for the federal order which will:

1. Discourage further over production
2. Increase milk prices

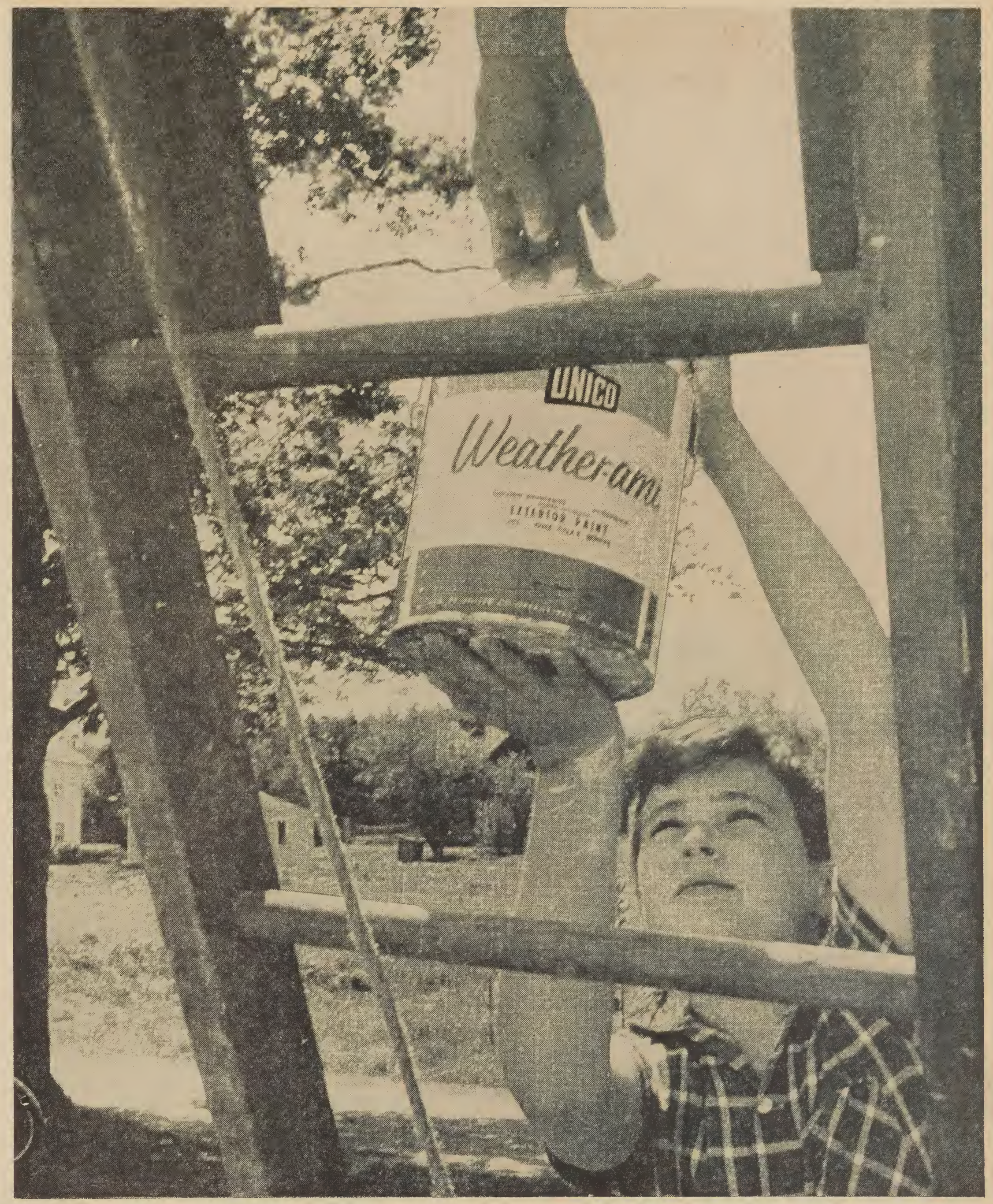
MARKET REPORT: N.Y. - N.J. POOL

From 1959 to 1961 a 10% production increase reduced blended milk prices 28¢ per cwt. . . The market is now 25% over supplied . . . and headed for still more surplus which will depress prices to $4.00.

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GLF UNICO PAINTS

Let's Get Milk Supply In Line with Demand!

By CHESTER W. SMITH*

SOME FEDERAL farm programs are often referred to as a violation of the law of supply and demand. Included in this characterization are programs involving acreage allotments, marketing quotas and price supports. Price fixing under Federal milk orders has usually not been so regarded, but recent proposals for two-price base plans under those orders appear to some people to be interference with supply and demand.



CHESTER W. SMITH

*Chief Economist for Mutual Federation of Independent Cooperatives, Syracuse, New York.

A Closer Look

Let's take a closer look at supply and demand. Each of these terms considered alone is easy to understand. Supply means the quantity of a commodity produced or on hand. Demand means the quantity of a commodity purchased, or is often defined as the quantity that consumers will buy at a given price. Each of these terms is commonly considered in various qualified respects, such as potential supply, prospective demand, etc.

Textbooks on economics describe a law of supply and demand. In its simplest concept, this law describes response to change in price. An increase in price to the producer of a commodity is considered to stimulate him to increase production (supply) and vice versa. The opposite is true for demand — an increase in price to the consumer is considered to discourage consumption (demand) and vice versa.

An important applied aspect of this law is the **degree** of response to price change, both in quantity and time. Both supply and demand response to a given degree of price change is much greater for some commodities than for others. Supply response changes from time to time with the development of new techniques which lower production cost. Demand response also changes from time to time through the effect of advertising, education and new or improved products. The demand for horse-drawn buggies decreased rapidly when automobiles first became popular.

Producers of anything must take both supply and demand into consideration. Production has no value unless there is demand for the commodity or article produced. So every producer tries or would like to gauge his production to a quantity for which there is demand at a price that will cover production costs plus a profit.

Producers of anything in our free enterprise economy, be it television sets or bird seed, have a constant incentive to make as much profit as possible. This is the life blood of our economic system. Consumers, on the other hand, have a constant incentive to buy at prices as low as possible. The interaction of these two major incentives determines business practices; it's the law of supply and demand in action.

Need Balance

A prime consideration in any business is a balance between supply and demand. Manufacturers strive to produce no more than they can sell at a profit, regardless of production capacity.

If General Motors gets overstocked with Chevrolets, assembly lines are shut down until the backlog of cars is sold. Nobody regards this practice as interfering with the law of supply and demand. On the contrary, this practice is attempting to operate in conformity with the law of supply and demand.

Farmer Response

There are many thousands of dairy farmers competing with each other in selling raw milk, an unbranded product. As individuals, without proper organization of total supply, they lack the ability of our giants of industry to gear output to consumer demand.

Working alone on the farm, a dairyman devotes most of his attention to production efficiency. Greatest efficiency from the standpoint of production cost is achieved by producing at the full capacity level of the farm.

Great strides in improved efficiency have been achieved, especially in the past ten to twenty years—but many of the improved production techniques result in increased production. And unless there is sufficient demand to absorb the increased production, the result is a price depressing surplus that may wipe out part or even all of the benefit of improved efficiency, as far as the farmer's net income is concerned.

I've talked to several dairymen lately who say that this kind of a treadmill is getting them nowhere. They say that even with more higher-producing cows to help pay for added machinery and to offset declining milk prices, they're slipping behind instead of gaining financially. Rather than freedom of opportunity to work out of low prices and surplus, they feel that still more production (which the market doesn't need) as the only means of making the milk check match mounting production expenses is a millstone around their necks from which they can see no escape.

How do dairy farmers react to price changes? In the last ten years there have been two prolonged periods of declining blended prices in the New York-New Jersey milk pool. From 1952 to 1955 the blended price declined 15 percent, but total deliveries of milk and deliveries per producer both increased 14 percent during the same period. From 1959 to 1962 the price declined 10 percent and total pool supplies increased 13 percent and deliveries per producer increased 21 percent.

These prolonged periods of milk production increase in the face of declining prices appear to contradict the common notion of how supply and demand works. It appears that the natural expectation of less production when the price drops takes a long time to happen—three years or more.

It will eventually occur when the cost-price squeeze gets tight enough over a very long time. But many dairymen often respond to a drop in price by first increasing production to maintain the size of their milk check.

Federal milk orders have done a good job of obtaining stable marketing conditions for dairymen. But in recent years they haven't helped much in maintaining adequate net income at present day levels of production cost. The reason seems to be that the supply-demand factors in Class I price formulas don't come to grips with the real nature of production response to price. Since mid-1959, production of milk in the New York-New Jersey pool has constantly increased to the point of an oversupply of about 25 percent at present. The supply-demand factor in the Class I price formula has continually lowered the price, but the market has yet to turn the corner toward a balance of supply and demand.

Meanwhile, every producer can get the blended price for **any** amount of increased production. This is about $1.15 per cwt. more than the real value of the extra milk in the market place, since it has no better use than manufactured products (surplus). This is a basic defect in the price structure.

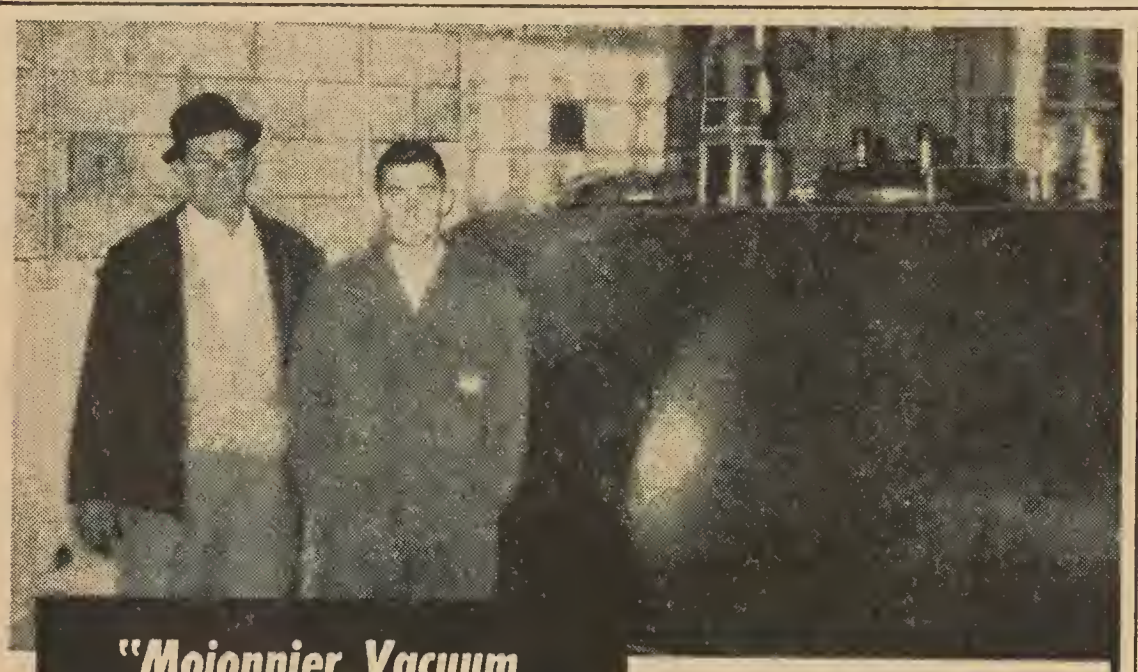
Two-Price Plan

A way to correct this defect is to distinguish between a higher price for normal supply and a lower price for milk delivered above normal supply, on an individual producer basis. To accomplish this the normal market needs to be pro-rated among producers by giving each one a base according to his deliveries in a recent "base" period.

This unfortunately introduces some administrative headaches. But base plans are not new and the administrative problems can be handled satisfactorily according to experience in some other markets. Mutual Federation of Independent Cooperatives has recently developed such a two-price proposal for the New York-New Jersey Federal order that has met with approval of the Boards of Directors of most of its 58 member cooperatives. The plan is now being explored with other cooperatives, with U.S.D.A. officials in Washington, and with agricultural leaders in Congress.

An amendment to the Agricultural Marketing Agreement Act of 1937 (the milk order law) is necessary to provide authority for such two-

(Continued on Opposite Page)



"Mojonnier Vacuum Bulk Cooler, a natural for transfer lines"

. . . RUDY KARASEK, SR. and JR.
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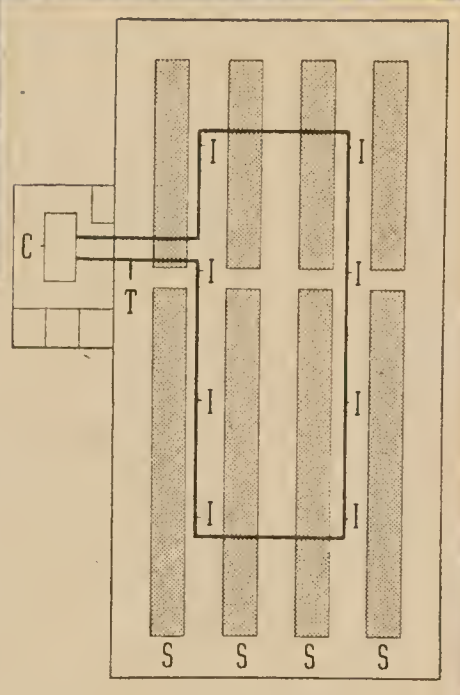
"Our transfer line connects directly to our Mojonnier Bulk Cooler—no milk pump or releaser is used at all. This gives us the simplest system possible, easy to maintain and operate. Spray-O-Matic does an excellent job of cleaning the tank. After milking we change only 2 connections and Spray-O-Matic cleans the line, too. Our Mojonnier has everything from highest quality milk protection to lowest cooling cost."

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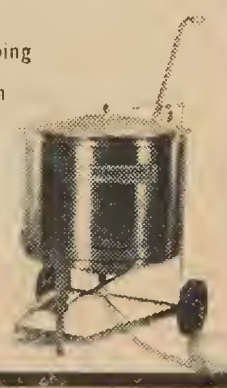
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VIEW OF KARASEK SYSTEM

C—Mojonnier 1000 gal. Bulk Cooler —key unit in this system.
I—8 milk inlets on transfer line served by 2 Mojonnier Dumping Stations.
S—4 rows of milking stalls in 136 ft. x 68 ft. barn.
T—280 ft., 1" stainless steel transfer line.

Mojonnier Dumping Station for low pouring height in barn, milkhouse or parlor.



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Drying off a Cow

By ED HARRISON *Hardin Farms, Camden, N. Y.*

IN DRYING a cow off, what is the procedure that can be followed that is most likely to prevent a mastitis infection from becoming established in the udder?

Over the years we have employed a few milkers who had a solution of their own. They were what might be called professional at the art. Their milking technique was such that it was not uncommon for cows in their care to be completely dry a month to six weeks before they should have been. Economically, however, their technique was ruinous.

In my judgment, the best method to follow in drying a cow off requires a certain amount of boldness, because the best known procedure is to just quit milking the cow. There is plenty of scientific evidence to support this method. Milk secretion depends upon osmotic pressure within the secreting tissue of the mammary gland. Milk secretion is a continuous process up to the point where back pressure from the milk that has accumulated in the udder becomes greater than the osmotic pressure of the tissue. When this point is reached milk secretion ceases. Thus, when drying a cow off, if enough milk is allowed to accumulate in the udder to overpower the osmotic pressure of the tissue, milk secretion stops and the gland becomes inactive and therefore soon ceases to function. When one understands the functioning mechanism of the mammary gland, he can readily understand why the common practice of dropping the cow to once a day milking in an attempt to dry her off is futile.

At this point in the lactation period there are very few cows still producing enough milk so that the 24 hour accumulation is great enough to overpower the osmotic pressure within the secretory tissue of the mammary gland. The change may result in some decline in production, but the important thing is that the gland will keep on functioning.

The following is a drying-off procedure that has proven highly successful in our herd: we skip several milkings, the number depending on the daily production of the cow, but long enough to allow enough milk to accumulate to slow down the activity of the gland. The cow is then milked dry and, as a precautionary measure, each quarter is treated, and with close daily observation we quit milking. At the first sign of any trouble, the cow is milked out and the quarters re-treated — and we start over.

There is one other thing that we watch for. As for the pressure of the milk builds up in the udder, easy milking cows sometimes start to leak. This can be serious. In the first place, the milking process becomes continuous and the cow will not dry up. Secondly, this constant milking process leaves the orifice of the teat open and invites invasion by some infectious organism. When this occurs the cow should be milked dry and the teats washed in alcohol or ether to remove any greasy film and then the end of the teat sealed with collodion.

No matter what procedure one follows in drying a cow off, there is no time during the dry period that we can afford to forget her. Early detection of pending trouble with prompt treatment often means a sound cow at calving time instead of a cow with one or more non-functioning quarters.

LET'S GET MILK SUPPLY IN LINE WITH DEMAND!

(Continued from Opposite Page)

price plans. The details of the Mutual plan (or any other specific plan) requires considerable explanation to understand its purpose, and benefits, as well as possible disadvantages. That is another story.

The point here is that such a plan would be an organized effort to better adapt the milk price structure under Federal orders to present day realities of the milk production situation. It is not a plan for interfering with the law of supply and demand. It's a plan designed to enable dairy farmers to market their milk more in harmony with real supply and demand forces than is possible under the present Federal order system.

DATES TO REMEMBER

Aug. 3, 4 —Black and White Show, Eastern New York Holstein Club, Dutchess County Fairgrounds, Rhinebeck, N. Y.

Aug. 4—Western New York Honey Producers Association annual basket picnic, Akron Park, Akron, N. Y.

Aug. 4 New York Hereford Assoc. Field Day, Harold Smith Farm, North Rose and Ronald Welcher Farm, Newark—Wayne County.

August 9-12 — Pageant of Steam, Victor-Canandaigua Road, N. Y.

August 15-16 — Farm Equipment Field Days (formerly Potato Field Day), Colby Homestead, Spencerport, N. Y.

Aug. 17-18—Lumberjack Roundup, Branbury State Park, Lake Dunmore, Vt.

August 20-23—Annual Meeting of the American Society of Agronomy, Cornell University, Ithaca, N. Y.

Aug. 23-25 — Annual Conference Eastern Apicultural Society, University of Vermont, Burlington.

August 24-25 — NYABC Cattle Show, Ithaca, New York.



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2	Brown Swiss	+745M	+23F

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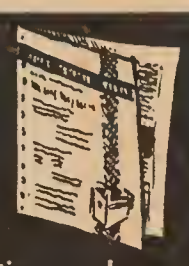
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How much of this gasoline delivery will be lost by evaporation?

Ideas for Better

GASOLINE STORAGE

By TOM CLAGUE

HOW MUCH do you lose from evaporation of stored gasoline each year? Would you guess $10—or $75? A major marketer of gasoline in a midwest state estimates that the average farmer in that state loses $50 to $75 a year in this way.

Much of this loss can be avoided. Studies indicate that approximately three-fourths of this evaporation can be saved just by reducing the temperature of the gasoline, and by pressurizing the storage tank.

Gasoline is a rather complex mixture of petroleum substances. These fluids have different temperatures at which they vaporize or evaporate. Since they must evaporate before they can burn in an engine, for winter use it is important that gasoline contain a portion of these substances which evaporate at a relatively low temperature. These portions of gasoline which vaporize first are called "lighter" than those that vaporize last. In this sense, water is "heavier" than gasoline, because it doesn't vaporize easily.

Tank Size

The size of the storage tank has a bearing on the losses; tests showed that gasoline stored in 55 gallon drums lost more than twice as much from evaporation as that stored in 300 gallon drums.

Color of the container and shading are important, too. Evaporation will be lowest from a white-painted tank, which is shaded, and has been pressurized with a specially-vented cap. Losses from a tank painted white, shaded, but without a pressurizing cap were twice that of the pressurized tank. On the other hand, losses from a white tank in the sun were about 2½ times as great as from the shaded white tank, while losses from a red tank in the sun were about two-thirds greater than from an exposed white tank. Again, losses from a red tank in the sun were eight times as much as from a shaded white tank with a pressurizing cap.

Put them all together and these factors really add up, and yet this quality of easy evaporation is necessary for performance. For example, gasoline is "lighter" in the winter for easier starting and better cold weather operation. But winter losses from a red tank in the sun were even higher than in summer, according to the studies. From a shaded, white, pressurized tank, the losses were about the same in both seasons.

Performance Loss

More than gallons are lost through this evaporation; especially in winter, **performance** is lost. After six weeks of winter storage in a red, unshaded tank without pressurizing vent cap, it took a temperature of 128° F to evaporate 10 percent of the fuel, compared to a temperature of only 101° F when the fuel was "new". Therefore, it is easy to see why the stored fuel would cause harder starting and slower warmup.

Although not so obvious in the summer, the loss in quality is still just as real, because the octane number of stored gasoline goes down as the "lighter" portions of the gasoline evaporate. A drop of as much as 6 points in the octane number has been observed during a four month testing period. Loss in octane rating below the requirement of the engine means power loss, engine knocking, and hard starting. When this happens, the gasoline is actually worth considerably less per gallon than it cost originally.

Still another problem that can be costly is a slight leak. Tests show that a leak of only two drops a second will cause a loss of 1,351 gallons in a year. Pretty expensive!

But providing ideal gasoline storage need not be expensive; it will probably pay for itself the first year. Spend perhaps $5 for a pressurizing cap, and put some white paint on the tank. For ideal storage shade the tank with a roof which will allow air circulation. The savings may not seem like a lot of money—but they will probably buy a lot of grease and oil for a season.

I WAS JUST FIGURING...

—by Cy Watkins



EGGS
Profit or Loss

If you have good birds to start with and handle them carefully, the choice of feed, when you house them, can be one of your most important decisions concerning the profits you'll make on eggs.

The feed you choose should be one that, (1) supplies the necessary egg-making nutrients high-producing birds need, and (2) does it at a reasonable cost.

Remember, it's the high-producing hen that makes your profit. That's because the overhead per bird is the same on a poor hen or a good one, but the overhead per dozen eggs produced is much lower from a high-producing hen. ("Average" birds may or may not earn their keep.)

So the first thing to look for in a layer feed is that it supplies the necessary nutrients, in an efficient balance and in sufficient concentration, to keep your **best** birds in high production, month after month. The average layer ration, good enough for average birds, just won't fill the bill.

True enough, any good bird will reach high production on even a poor feed . . . temporarily . . . because they have reserve nutrients stored in their body when they first start to lay. But that reserve doesn't last long if you have high-producing birds eating a feed that doesn't supply the concentrated nutrients they need. And soon, the best birds drop down to "average" production . . . your flock average drops . . . and your margin of profit goes down.

The ration you need is a premium quality, high-performance ration. It should contain the right balance of carbohydrate, fats and proteins . . . and it should also contain the MINerals, VITamins and antibiotic that help good layers maintain their top production.

The layer feed you mix according to Watkins recommendations IS such a ration. You use your own grain, locally purchased proteins, and fortify it with Watkins MIN-VITE for Layers . . . the MINeral, VITamin, antibiotic pre-mix.

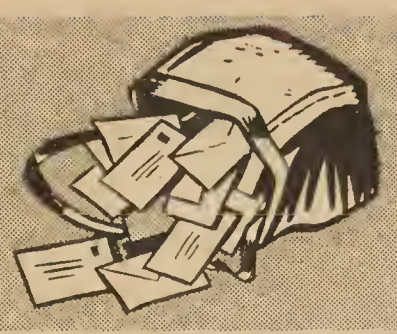
Best of all, doing it the Watkins Way you get a premium-quality ration for much less than any other premium ration . . . and for only a little more than the cheapest, bargain-basement kind of feed.

Put it all together, the high performance you can get from this premium quality feed, and the relatively low cost per pound when mixed the Watkins Way . . . and you come up with a really profitable arrangement. With good birds and good management, most people can produce a dozen eggs for something like 6c to 7c a dozen out-of-pocket cost . . . 12c to 13c total feed cost, depending on the value of your grain.

Next time your Watkins Dealer calls, talk it over with him. Let him cost out the program for you and your locality.

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POSTAL RATES

WE would feel shocked indeed if someone were to advocate running the public schools at a profit or in such a way as to negate their cost. Yet, for some reason, we seem to think another vital government service should be without cost.

The Post Office distributes a great deal of educational material — AMERICAN AGRICULTURIST for instance—to the people who buy that kind of information. Farm, trade and business papers are educational rather than entertaining.

At the same time, the Post Office is subsidizing businessmen who will protest that they believe in "free enterprise." The bulk rate mail loads the P. O. facilities and overloads the average citizen with "junk." Watch the wastebasket fill up when boxholders visit the rural Post Office.

I wish someone would come out with a law to charge first class rates for unsolicited advertising material. — *Robina D. Startup, Cuddebackville, N. Y.*

SHOE PINCHES

I read with interest your editorial, "Playing Post Office." On the same page was "Who's Hard-Boiled?" They seemed to contradict each other.

In the magazine publishing field you seem to be all in favor of government help, but not for farmers. When the government supports magazines by distributing them at a cost to the taxpayer, that's fine and necessary — according to your thinking—but let the farmer "sink or swim" in the market place.

We live in an area where the farmers get no government aid, and the farms going out of business number in the hundreds. We cannot pay our mortgages and taxes unless we make a profit either; that is not a fact reserved exclusively for magazine publishers.

If postal rates go up and the smaller magazines have to go out of business, let them take comfort in the thought they did so in an impartial open market.

So think it over! Anyone gets a different viewpoint when the shoe starts pinching them! — *Mrs. O. Shaw, W. Franklin, N. H.*

CHECK DIRECTION

I think the farm problem today is a surplus of politics and not a surplus of food.

The politicians want to take over the farms, tell us what to plant, how much we can plant, how much we can get for our crops.

Now, I would like to make one little suggestion, if it is possible. Why don't they concentrate on doing a better job of their own business — that is, the one that is now about $300 billion in the hole, and leave the farmers alone?

The farmers of today, their families, and their ancestors have produced the food and fiber that, in my estimation, is one of the most important single factors which enabled this country to grow from a mere colony to a leading world power in less than 200 years. Where else in the world can this record be equaled?

I believe in progress in farming, but I don't think it does any harm to slow down once in a while and make sure we are making progress in the right direction. — *Allen Wallace, Piffard, N. Y.*

A GLIMPSE BEYOND

Editor's Note: Frank Beneway, Ontario, N. Y., recently wrote us, and his letter contained some verses that struck a responsive chord:

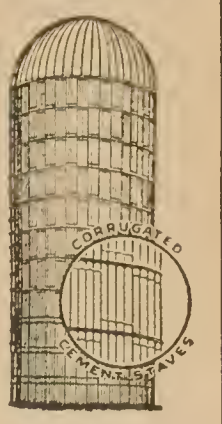
The Master ever leads those who have seen
A glimpse beyond the veil which hangs between;
Intangible the graciousness and calm,
Courageous words, discerning touch and balm.
As quick to feel one's suffering and pain
As aspen leaves move in the wind and rain,
As oak roots deeply mold the rocky glen
The Master's love enfolds the hearts of men.

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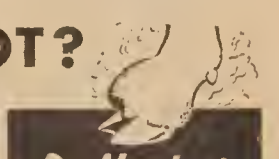
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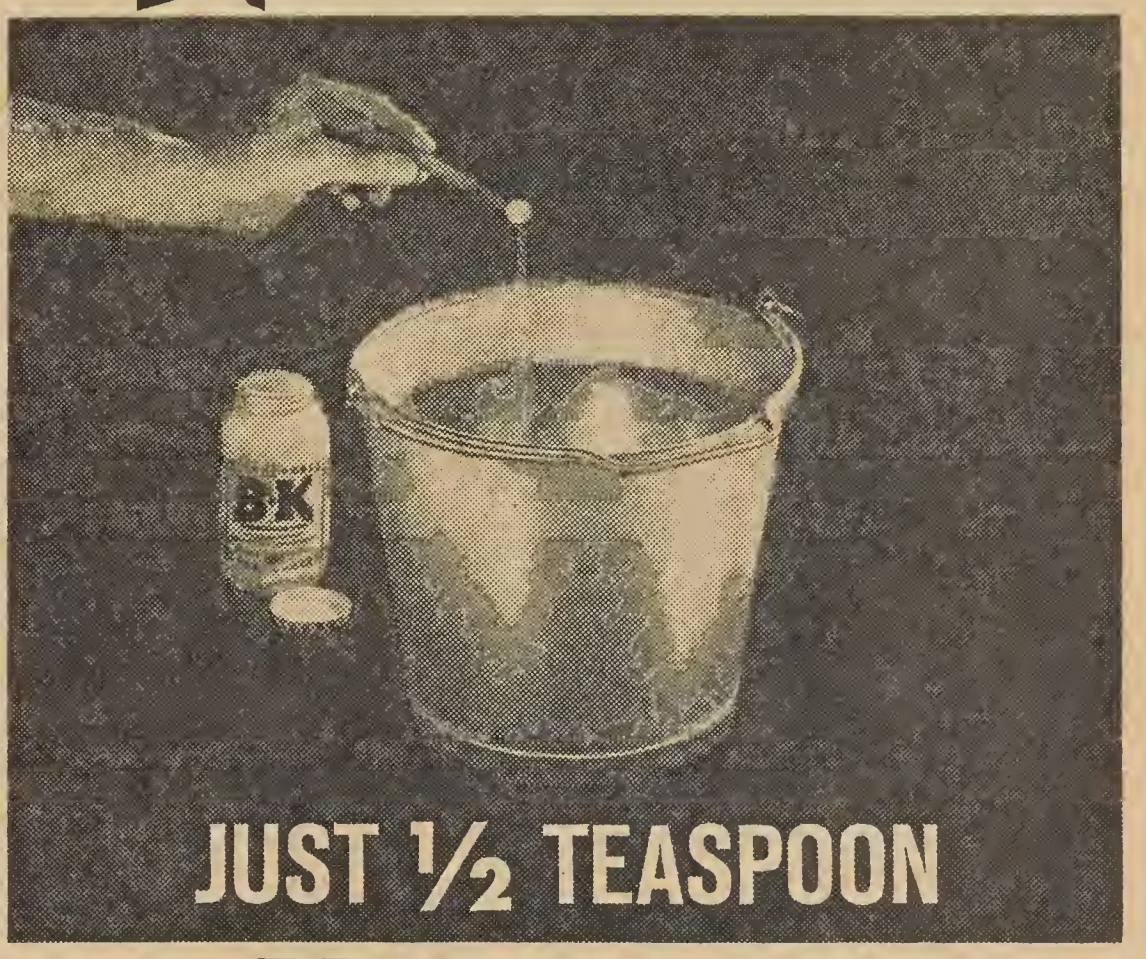
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PUBLISHING AND CLOSING DATES

September Issue Closes August 5
October Issue Closes Sept. 5
November Issue Closes Oct. 5
December Issue.....Closes Nov. 5

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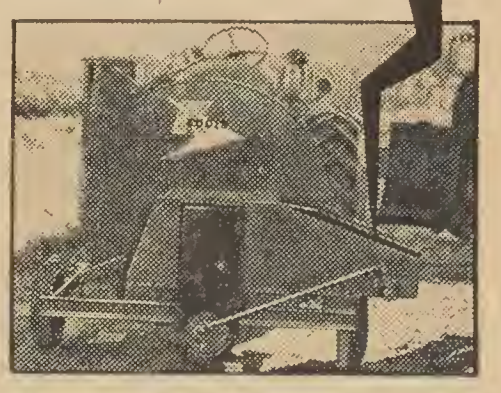
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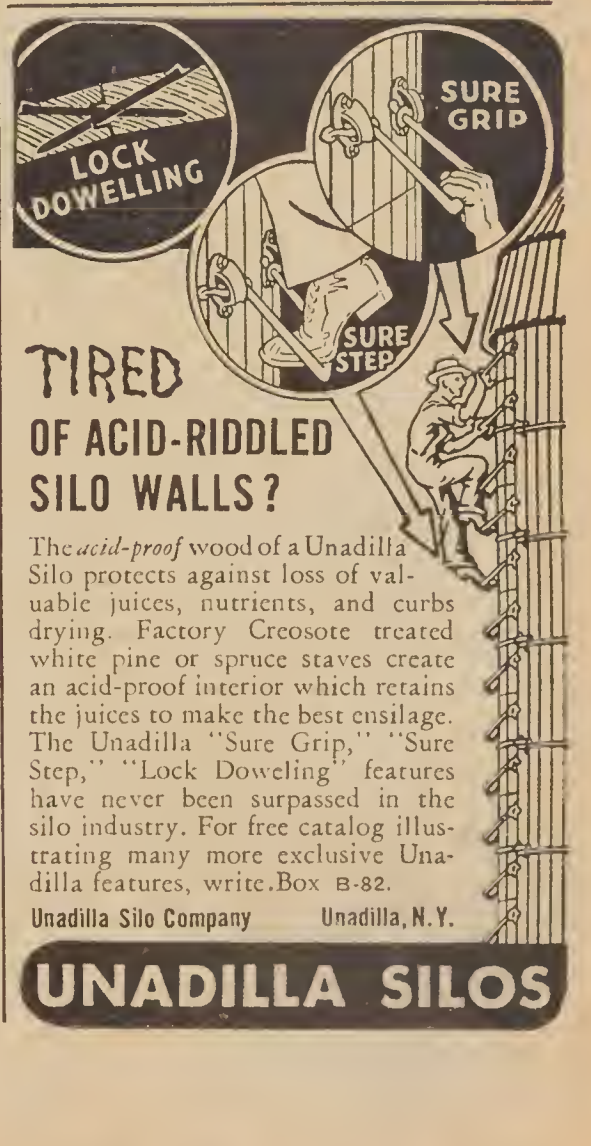


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Fresh Fruit Fanfare

By ALBERTA D. SHACKELTON

For eye and appetite appeal, summer's abundance of fresh fruits has no equal. Where else can one find so easily the jewel colors of peach and cantaloupe gold, the rosy red of watermelon, honeydew's cool green, the reds and deep blue to almost black of the berry family, and the symphony of colors in the grape varieties? These fruits also help to boost the health-giving minerals and vitamins in our diets.

Feature these fruits for any occasion. Keep plenty handy to eat out of hand, use them as refreshing first courses, in salads and desserts, and in the many delicious recipes using fruit.

COMPOTE OF PEACHES AND MELONS

- 3 cups sliced, sweetened fresh peaches
- ¼ cup lemon juice
- 1 cup eantaloupe and honeydew melon balls
- 1 cup any available berries (blueberries or raspberries)
- 1 can pineapple spears, drained or fresh pineapple, if available
- 1 can frozen lemonade concentrate, partially defrosted

Lightly combine the lemon juice and peaches. Chill fruit and drain. Just before serving, arrange fruit attractively in your prettiest glass compote or antique bowl, and pour over the fruit the partially defrosted lemonade concentrate. Garnish with mint. Serves 8 to 10.

PEACH OR APPLE KUCHEN

- 1 package active dry yeast
- ¼ cup very warm water
- ½ cup shortening, softened
- ½ cup sugar
- 3 eggs
- 2½ cups all purpose flour
- ½ teaspoon salt
- ¼ cup milk
- Peach or apple topping

Combine yeast and warm water and stir until dissolved. Cream together thoroughly the shortening and sugar. Add the yeast mixture, eggs, flour, salt, and milk. Beat until well blended (about 45 seconds at medium speed if you use an electric mixer). Spread mixture into a well greased 9-inch square pan. Arrange Peach or Apple Topping on top. Cover and let rise in a warm place free from draft, until doubled in bulk, about 1 hour. Bake in a moderate oven (375°) about 30 minutes. Turn out of pan and cool on a wire rack. Serves about 9.

Peach Topping: Arrange 3 cups sliced peaches, well drained, on top of batter. Combine ½ cup brown sugar, 1 teaspoon cinnamon, and sprinkle over peaches. Sprinkle over top 3 tablespoons melted butter.

Apple Topping: Arrange 2 cups apple slices over top of batter. Mix togethe until crumbly ⅔ cup sugar, 6 tablespoons butter, ½ cup flour, 2 teaspoons cinnamon. Sprinkle over apples.

BLUEBERRY UPSIDE DOWN CAKE

- 1½ cups fresh blueberries
- ½ eup sugar
- 1¼ cups all purpose flour
- ¾ cup sugar
- 2 teaspoons baking powder
- ½ teaspoon salt
- ⅓ cup butter
- ½ cup milk
- 1 teaspoon vanilla
- 1 egg

Wash and drain berries. Combine with ½ cup sugar and place in a well buttered 9-inch layer cake pan. Sift together the flour, sugar, baking powder, and salt. Add the butter, milk, and vanilla and beat 2 minutes. Add the egg and beat 1 minute more. Pour batter over the berries in pan. Bake in a quick moderate oven (375°), about 30 to 40 minutes. Serve warm, cut in wedges with Blueberry Sauce, if desired.

To make sauce, mash 2 cups blueberries slightly and combine with a mixture of ⅔ cup sugar, 1 tablespoon cornstarch, dash of salt and 1 tablespoon lemon juice. Cook mixture until clear and slightly thickened. Chill. Makes about 2 cups.

Serve Yourself Fruit Salad Plate Meal

On a large attractive glass plate place a variety of crisp summer salad greens. On top of greens arrange fresh peeled pear halves, sliced fresh peaches, small bunches of grapes, cantaloupe, honeydew, or watermelon wedges, slices or balls. Fill pear halves with any berries available and scatter additional berries over the plate. At serving time arrange on top of fruits scoops of hard frozen sherbets or ice cream of various flavors and colors, and garnish whole plate with mint sprigs. Have handy a bowl of chived

(Continued on Page 27)



What could be more inviting for a summer luncheon than cool, fresh fruits? The individual salad-dessert plate in our picture is a nice variation of the "serve yourself" meal described above.

Styles For School And Autumn





4916. Pleated charmer; embroider your own initials at shoulder. Printed Pattern in Junior Sizes 9-17. Size 13 takes 4 yards 35-inch fabric. Transfer. 35 cents.

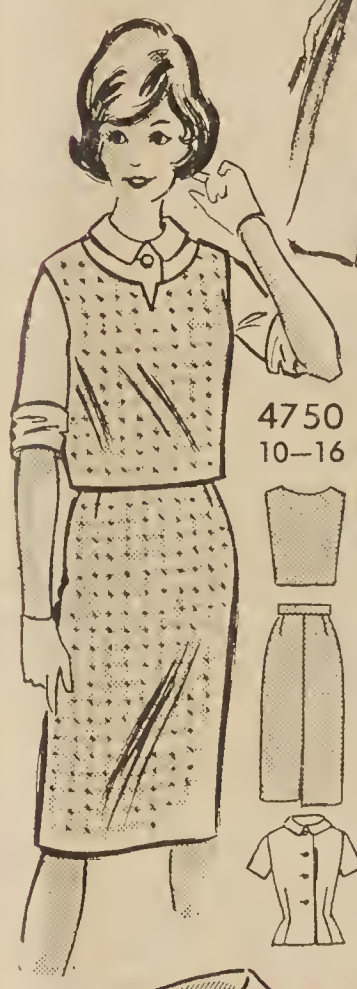
4750. Separates give you many school-time changes. Printed Pattern in Teen Sizes 10-16. Size 12 jerkin and skirt 3 yards 39-inch fabric; blouse 1⅝ yards. 35 cents.

4950. Amply cut apron for larger figures. Printed Pattern in Women's Sizes 36-50. Small Size (36-38) takes 2⅞ yards 35-inch fabric. Embroidery transfer included. 35 cents.

9136. Easy-sew nightgowns with choice of length, necklines, sleeve versions. Printed Pattern in Half Sizes 14½-26½. Size 14½ with yoke, short sleeves 5¼ yards 35-inch fabric. 35 cents.

4869. To the princess-curved bodice, add pleated skirt or slim. Printed Pattern in Misses' Sizes 10-20. Size 16 with pleated skirt 5⅛ yards 35-inch fabric. 35 cents.

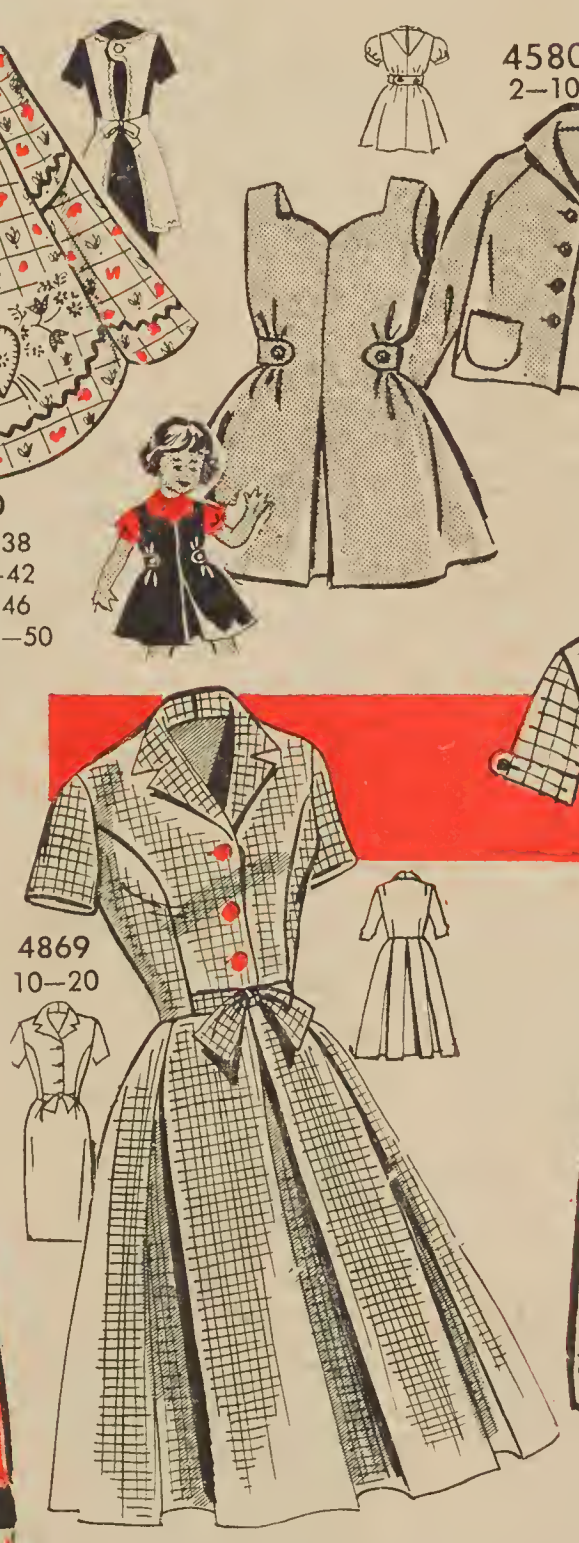
4852. Ring-collared jacket, two skirts—slim and gored. Printed Pattern in Misses' Sizes 10-18. Size 16 jacket, gored skirt 2½ yards 54-inch fabric. 35 cents.





















4614. Be smartly suited in this trim trio. Printed Pattern in Women's Sizes 36-48. Size 36 jacket, skirt 4 yards 35-inch fabric; blouse 2 yards. 35 cents.

4591. Sew the pleated version and slim style with one Printed Pattern. Misses' Sizes 10-20. Size 16 pleated dress 3¾ yards 39-inch fabric; slim 3½ yards 35-inch. 35 cents.

4580. Merry mixers for her school wardrobe. Printed Pattern in Child's Sizes 2-10. Size 6 jumper, jacket 1¾ yards 54-inch fabric; blouse ⅞ yard 35-inch. 35 cents.

9484. Neat shirtdress to sew with gored skirt or pleated. Printed Pattern in Half Sizes 14½-24½. Size 16½ gored style takes 4⅛ yards 35-inch fabric. 35 cents.

9472. Choose button-tabbed neckline and cuffs or simple scooped neck when you sew this slimming style. Printed Pattern in Sizes 12½-22½. Size 16½ takes 3¾ yards 35-inch fabric. 50 cents.

4793. Double the pleasures of fall with this slimming suitdress. Printed Pattern in Half Sizes 14½-24½. Size 16½ takes 4 yards 35-inch fabric. 35 cents.



PATTERN 9472 is FIFTY CENTS. PATTERNS 4916, 4750, 4950, 9136, 4869, 4852, 4614, 4591, 4580, 9484, 4793 are THIRTY-FIVE CENTS each. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Department, Box 42, Old Chelsea Station, New York 11, N. Y. Please write name, address, pattern size and numbers clearly. Send 35c for our Fall-Winter Pattern Catalog with more than 100 fashions to sew. School separates, career clothes, styles glamorous and casual. All sizes.

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Garden Talk

By NENETZIN R. WHITE

LIVING AREAS

LAST MONTH we covered the subject of patios—what materials to use, and how to build one or to hire it built. Now, let's look at our grounds from an overall picture. Do they give you what you really want—picnic or barbecue areas, play areas for various games, shade where you would like it, plenty of parking space, private screened sections, wide access paths, a good face to the public, ease of maintenance, a velvety green lawn, and good plants (not scraggly misfits)? Quite an order, isn't it? Well, let's take these one at a time and develop a character garden for you, one that reflects your personality.

Barbecue areas are often part of a terrace or patio, but grass is cooler, and you may want to build your fireplace (or move your grill) out on the lawn. Watch yourself, and don't move this too far from the kitchen. You may have a nice shaded corner way out back, but it can seem like miles on your tenth trip to the kitchen! Try to keep this area reasonably close to the house, and if shade is needed, you can always plant one or two trees that are fast growing and strong, such as Moraine Locusts.

Ask an Expert

Of course, if your yard is all cut up, games will be impossible. If you can't see an easy way to get open areas, ask for some help, but ask an expert. This advice may cost you a little money (find out in advance, and it's usually worth the cost), or it may be free. In either case, it's important to know what you are doing. It can be quite costly to move plantings, and even if you do this yourself, it's a shame to put a lot of effort into moving weed trees or poor plants. Then, too, you want your play area to be an attractive integral part of your grounds.

Shade is yours where you want it. Don't be misled by the old axiom that a big tree must be many feet from your house. Trees can be, and frequently are, placed right next to the house, using taller varieties to shade the roof, and the smaller types to shade the side walls themselves. Vines, too, can be very valuable in shading side walls. Here advice is also important, for you may need plantings on the sides of your property as a screen or backdrop.

Parking is essential if you entertain, and it will become even more necessary as your children grow up. So many of our homes ignore completely the machine age in which we live. Parking on a busy road or street can be downright dangerous, so also can "blind" narrow driveways. Let's admit that the auto is here to stay and provide roomy areas in which our guests can park.

Frequently, you can gain some parking space at the side of your garage, or you can widen and enlarge part of the drive. These areas don't necessarily have to be paved. Dig down a foot or two and put in good gravel. If you need some fill, or a bank removed, call your local landscape contractor. If you are willing to wait a while, he can often get this done for very little when he has to remove soil from one job, or when he needs it for another. Also, off-season prices are frequently quite low.

Ideas For Privacy

Private areas need not be expensive. Evergreens usually make the nicest plantings, and in order to keep the cost down, use the smaller sizes. Flowering shrubs are also delightful, not only supplying flowers in abundance, but also delightful fragrance. They are usually less expensive than the slower growing evergreens. Vines, with the proper support, can give privacy, and again fragrance is usually possible. Fences are easy to obtain, but need some plantings to soften them.

Not only are wide roads a necessity, but walks and paths as well. Keep away from the old fashioned idea of a big "S" curved walk. Make it go in as direct a route as possible to its objective. That's what it is for, after all! We use plants frequently as an accent to show which path or entrance to use. They also tend to soften harsh corners.

A good "face" to the public need not be hard to attain. A few good evergreens with some flowering shrubs and an ornamental tree or two will do for your foundation plantings. It is far better to use too few than too many. A groundcover and some nice edging will help you keep work at a minimum.

In these busy days, ease of maintenance of your whole property is important. Try to keep your plantings, wherever possible, in borders rather than in beds. Mulching is not only good for the plants but it also discourages weeds and subsequent labor. Edging keeps grass out of plants and imparts a finished look.

Lawn care is essentially good feeding. A healthy lawn rarely becomes infested with weeds and crabgrass. What undesirable plants do come in can easily be eradicated with the proper herbicides. Spring, summer and fall feedings are a "must" for a real velvety lawn. Nitrogen of an organic source is the most important food, and we use an organic 20-10-10. Mowing high is in most instances advisable. Set your mower at 1½ to 2 inches and leave it there throughout the year.

Unhealthy looking plants and overgrown shrubs can ruin the looks of your entire planting. Deciduous plants that have gotten out of hand can frequently be cut to the ground, and a nice healthy plant will take its place. The exact time of year to do this "operation" depends on the particular plant. Get professional advice **before** doing this! Frequently we remove plants to open up a vista or to get more air circulating, so don't close yourself in and get a choked feeling. If a plant is sickly or half dead, chances are that it is just not suited to your location. Try a different one—they aren't really very expensive.

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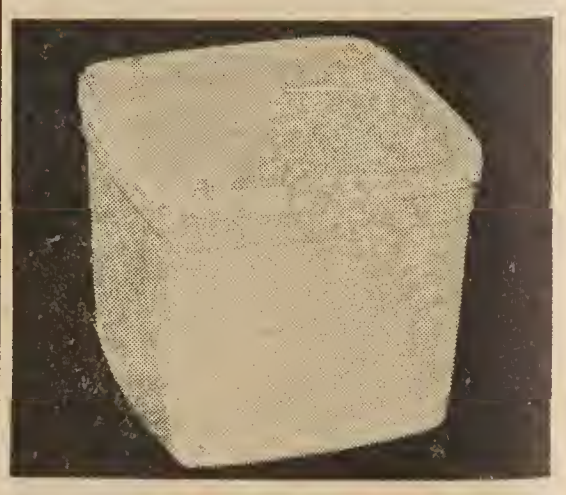


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IT'S FAIR TIME...

By Augusta Chapman, Home Editor

FROM north to south and across the country from Maine to California, thousands of homemakers will be showing off their skills at county and state fairs in the weeks just ahead. You'll find the newest and best in homemaking at these fairs and perhaps see your neighbor's pie, cake or quilt sporting a blue ribbon.

"Spotlighting the Family" is the Women's Division theme at the 1962 New York State Exposition to be held in Syracuse from August 28 through September 3, and there'll be many exciting exhibits and activities planned for your family's enjoyment.



MRS. BERNICE WRIGHT

Women's Day at the Exposition will be Wednesday, August 29, when the red carpet will be rolled out for the ladies! The program will begin with a smorgasbord brunch at 11:00 a.m. in the new Helen Bull Vandervort Wing of the Harriet May Mills Building, and we'll be entertained while we eat with a fashion show of the latest fall styles. Following brunch, **Mrs. Bernice Wright,** assistant professor of Family Relations and Child Development at Syracuse University, will talk on "The Family, An Enduring Resource," and this year, the wife of New York's Lieutenant Governor, Mrs. Malcolm Wilson, will present the Community Service awards.

Apples will be featured in the Family Food Contest this year, according to Mrs. Helen B. Vandervort, Director of the Women's Division. with prizes given for the most original apple recipe as well as for other favorite family recipes using apples. In the foods department prizes will total over $1200.

You will want to see the completely new all-gas Food Demonstration Kitchen in the Harriet May Mills Building, where you will also find the very latest ideas in kitchen cabinets. Here, too, each day at 1:00 p.m. there'll be a demonstration of special foods, table settings, and decorations for American holidays such as Thanksgiving, Fourth of July, and Christmas.

The 1962 art exhibit will be the largest ever sponsored by the Exposition, and you'll enjoy the Pageant of Photography with approximately 200 pictures by famous American photographers. You'll also see fashion shows, a family room designed to help solve storage and recreation area problems, and in the Empire Court the model home again redecorated to illustrate modern ideas in living.

And don't stay home from "the Fair" because of small tots in the family. Use the Children's Center which is located right behind the Horticulture Building, and has a trained staff to take care of children between the ages of 2 and 7. There's no charge for this service either unless the children stay during meal time, in which case you'll pay a nominal meal charge.

We hope you'll stop in at the AMERICAN AGRICULTURIST booth in the Dairy Building too. Some of our staff will always be on hand to welcome you. Take advantage of the opportunity to meet old and new friends, to see the prize winning products of farm and home and to learn what's new. See you at the Fair!

SEE AND SEW!



THERE'S MORE than ever before in our Fall-Winter Catalog — styles for school, home, town, country, travel! Timeless classics, smart casuals, pretty date dresses. More styles to slim in the half-sizes and more fashions in every size range from Tots to Juniors, from Misses to Women. See all the new fashions in our Fall-Winter Catalog!

For your copy send 35c to:
AMERICAN AGRICULTURIST, Pattern Department, Box 42, Old Chelsea Station, New York 11, New York. Please write name and address clearly.

MEMORY FOR AUGUST

By Mildred Goff

Green water over cold white stones,
Murmuring in undertones,
Trickles through sweet fern, to make
Beneath tall trees, a shallow lake.
A doe and fawn drink from the cool
Still water of the forest pool.
This is a pleasant memory
To cool an August day for me.

FRUIT FANFARE

(Continued from Page 24)

cottage cheese, plenty of raisin bread or blueberry muffins, and milk and let each one serve himself.

Cantaloupe Salads

Cantaloupe Chicken Salad. Toss firm but ripe cantaloupe balls with your best chicken salad, serve on crisp greens and garnish with additional balls.

Cantaloupe Rings With Cottage Cheese. Peel medium sized cantaloupes. Cut into 1-inch crosswise slices, remove seeds and place on lettuce. Fill centers with mound of cottage cheese and garnish with mint and fresh berries. (Use fruit mixture in cantaloupe centers, if desired, and pass bowl of cottage cheese.)

Cantaloupe and Shrimp Luncheon Salad. Cut small to medium cantaloupes in half. Remove seeds. Fill centers with mixture of best shrimp salad. Serve with lemon slice and garnish with mint.

SQUIRE APPLEGATE SAYS:

"KEEP AHEAD OF THE WEATHER"



For best results from your work around the lawn, the garden, or the farm, take the Squire's friendly advice and "Keep ahead of the weather", by keeping informed. To many folks this means the WEATHER ROUNDUP listening habit.

For fresh reports on current conditions across New York, plus the official weather forecast, tune to any of these stations. Regular broadcast times are 6:25 and 7:15 A. M.; 12:15 and 6:15 P. M.

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Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
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DeRuyter-Syracuse	WOIV-FM	105.1 mc.
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Ithaca	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
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AM STATIONS

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Canandaigua	WCGR	1550 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Sayre, Pa.	WATS	960 kc.
Elmira	WENY	1230 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Scranton, Pa.	WEJL	630 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
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Northeast Radio Network

GLF Quality

Brought to you at 7:15 A.M. by the Cooperative G.L.F. Exchange, Inc.



Tourists enjoy exploring the quaint streets in St George, Bermuda, which was founded in 1612.

JOIN OUR FALL CRUISE!

October 17-27

IT'S ALWAYS FUN to travel with American Agriculturist, especially when we go on a cruise to the Caribbean. When the rates are as unbelievably low as they are for our Fall Vacation Cruise to Bermuda and Nassau, we know you'll want to pack your bag and join us!

This is another of our famous "all expense, no worry" tours, and it will be directed by our travel agents, the Travel Service Bureau of Needham, Massachusetts. They have arranged for other rural groups to share our beautiful cruise liner, The Queen of Bermuda, so the ship will be virtually "ours." The tour party will be composed of people with similar interests, folks you'll enjoy traveling with.

There'll be special get-together meetings of former tour groups with the opportunity to renew old acquaintances and reminisce about the trip you took to California, Alaska, Hawaii, or Europe. But as Mr. Eastman said in his invitation, "This cruise-tour is in no way closed to your friends who have not traveled with us before, so why don't you get a group together and introduce them to carefree travel—the American Agriculturist way."

Our Fall Cruise dates are October 17-27, and the fun will begin when we meet in New York for a get-acquainted banquet at the Sheraton Atlantic Hotel and for a day of sightseeing or shopping. After New York will come:

Bermuda —We'll visit Leamington and the Crystal Caves, the Aquarium Perfume Factory, and the Devil's Hole. We'll also explore the quaint streets of old St. George—streets with colorful names like Petticoat Lane, Old Maid's Lane, and One Gun Alley.

Nassau — Here we'll shop on picturesque Bay Street, noted for its fine shops with bargains in crystal, woolens, silver, cashmere, and perfumes. We'll also see ancient forts, the Queen's Staircase, the native market, Government House, and go to Ardastra Gardens for the famous Flamingo Parade.

The days we spend on the ship, cruising through turquoise seas, will be filled with every kind of activity imaginable, all arranged by our cruise director. There'll also be ample opportunity to relax and sunbathe on deck, to swim in the luxurious pool, and to visit with friends, both old and new.

Write us today for full details and cost of our Fall Cruise (use coupon on this page). Then, if you decide to join our party, send in your reservation soon, as over one-half of the space allotted to American Agriculturist has already been sold. A deposit of $100 per person will hold your reservation now and will be refunded if you have to cancel later. Come with us on this delightful cruise and have the time of your life!

Mr. E. R. Eastman, President
American Agriculturist
Box 367-R
Ithaca, New York

Please send me without obligation on my part a free copy of your Fall Cruise itinerary.

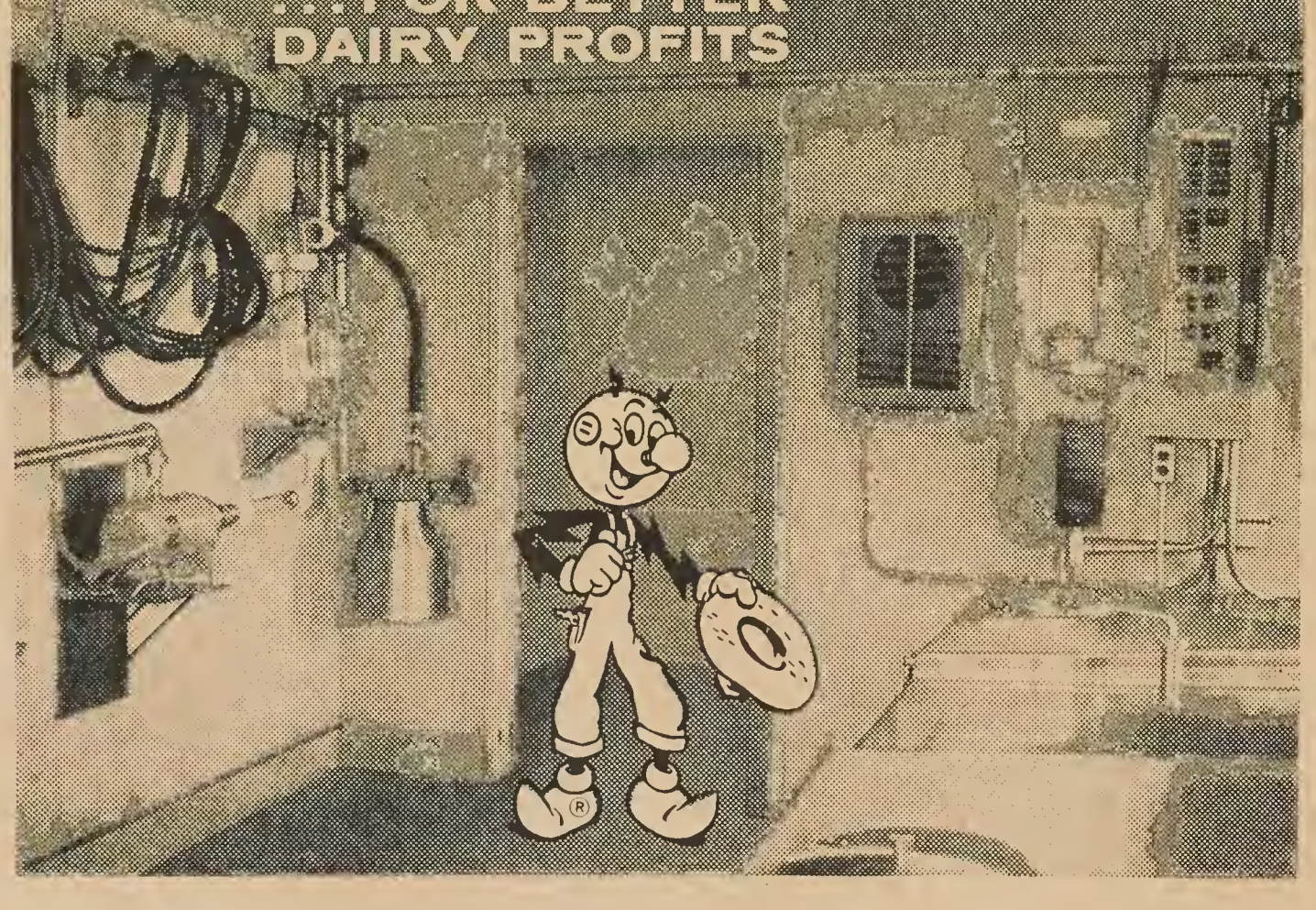
October 17-27, 1962.

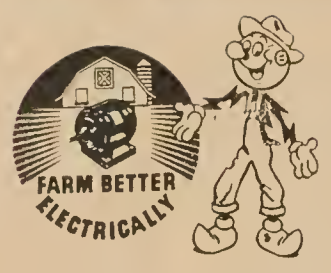
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Want an Automatic Yard Light Free? *If your farm is up to date electrically, you may already qualify. Contact your Niagara Mohawk representative for full details.*

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INVESTOR OWNED–TAXPAYING

Country Pastor

God's Other Door

By ARTHUR MOODY

MANY FOLKS have discovered that God has another door when the one they had been trying to enter closed. Sometimes it has seemed to be slammed shut by a ruthless hand, leaving the entering one baffled and bewildered.



ARTHUR MOODY

I knew a young fellow who entered college with high hopes and ambitious plans to become a medical missionary. He had a deep-seated conviction that more souls could be reached if you helped heal sick bodies.

But in the midst of his course typhoid fever struck. After long convalescence he was left with a distressing digestive ailment which made it impossible to resume his studies for more than two years. By that time the door was jammed shut by difficult family circumstances.

It beeame plain that there were now two barriers, his health and finances — also delay in academic progress. What should he do? Another door — God's other door — opened in the form of an invitation to "supply" a small church while getting back on his feet.

Hesitatingly he entered that door. As strength improved he discovered that here was an opportunity which enlarged so definitely that it took a lifetime of progressive service. Through the years experience has taught the lesson to many others that God has many "other" doors for folks to enter. He always has one open for the determined seeker.

soon it will be Last Call for an extra special cruise



AMERICAN AGRICULTURIST

BERMUDA-NASSAU TOUR October 17-27, 1962

under the direction of Travel Service Bureau





Here's a special trip that American Agriculturist has planned for you — an opportunity for a delightful, luxury cruise to Bermuda and Nassau.

This tour is open to anyone—if you have not traveled on an AA-TSB tour, this would be a wonderful introduction to carefree travel with a friendly group of American Agriculturist folks.

And Travel Service Bureau has arranged for other rural groups like ours from the Mid-West to share the cruise ship; this will make the ship virtually "ours" as there will exist a community of interests among all on board.

Your cruise ship, the QUEEN OF BERMUDA, recently underwent a $4½ million refitting and is now the ultimate in travel to Bermuda and Nassau. Her veteran crew makes her truly one of the "happiest ships" afloat. And your last night aboard this floating palace will be a special gala evening — a final night you'll long remember.

TSB TOURS

TRAVEL ANYWHERE WITH TSB

BERMUDA, a magic island, a pleasure spot seldom forsaken by the sun, a pastel island of coral and jade, is your first stop. Average daytime temperatures here in October are 79° (nights average 10° cooler). You'll visit Leamington and Crystal Caves, the Aquarium, Perfume Factory and Devil's Hole (a natural coral cave filled with fish, eels, lobsters, sharks and turtles). You'll also see the old and quaint town of St. George. Leisure time can be spent on land or on board ship.

NASSAU, the famous, colorful port of the Bahamas, has its own special charm. Colorful Bay Street is noted in the Caribbean for its wonderful shops where you'll find crystal, woolens, silver, and cashmere from England; perfumes and doeskin gloves from France; and many, many more bargains. You'll see ancient Forts Fincastle, Montague and Charlotte, the Queen's Staircase, Government House, a unique native market, the Ardastra Gardens and the famous Flamingo Parade. And, again, you may spend your leisure time bargain hunting, sightseeing, or enjoying the life of luxury aboard ship.

Here is your chance to treat yourself to a really carefree, worry-free cruise. No other tour offers you the personal care, the all-inclusive arrangements and the friendly group of travel companions that you'll long remember on this American Agriculturist BERMUDA-NASSAU TOUR.

For complete information, mail coupon today.

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Please rush me free booklet and full information on the all-expense American Agriculturist-TSB BERMUDA-NASSAU TOUR, Oct. 17-27, 1962.

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Ed Eastman's Page

AUGUST IS HERE AGAIN

HELLO everybody!
It doesn't seem possible that we're in the last month of summer and that it is August again.

To me, August has always been a lonesome, sad time. Haying and the grain harvesting are over; the birds are quiet, and the long afternoon shadows fall across the lawn. The cattle stand quietly in the shade of the pasture tree, knee-deep in the creek, or wait quietly at the pasture gate for the evening milking. Everything has stopped growing, and a sort of brooding silence lies over the land while all Nature pauses briefly to rest.

I suppose that part of my feeling about this last summer month—particularly its later days—is that in so many families it is the "going away time". The summer school vacation is over and thousands of young people are leaving home for the first time for a job or to go to college.

I'll never forget what a farmer friend told me once about how he felt on one late August day when his only son left home for the first time. Before leaving, the boy had been helping him haul in grain. Now he was alone, so he climbed on the rigging, urged his team into a gallop, and worked like mad loading and hauling the grain alone to ease the pain in his heart.

But life must go on. To be able to live with any degree of peace and contentment, we must fight constantly to adjust ourselves to inevitable change.

THE DOOMSDAY BOOK

IN THE year 1086 William the Conqueror, who headed the Normans when they invaded England, had a tax survey made. The survey recorded every piece of property, every acre of land, every peasant's hut, every ox, cow, pig, and even every hive of bees. The English Saxons called this tax survey the Doomsday Book, because it spared no one. Its purpose was to raise taxes for the Normans, and it helped them to destroy the liberties of the people.

I thought of that when a friend of mine told me that she got a notice from the Income Tax Bureau demanding payment of $109.33—the original tax plus interest — when she had already paid the tax and **had a receipt for it.**

What made me the maddest was the wording of the notice, which read:

"Unless you make immediate payment, we will take action to enforce collection. Such action may result in levy on your property, receivables, bank accounts, salary, wages, commissions or other income as a means of collecting your unpaid account."

Such language might be justified with a criminal but never to an American citizen. If that is what we're coming to in America, we might as well forget all about liberty. I doubt if any citizen of Russia ever receives any notice from their government more dictatorial or threatening than that from our own bureaucrats!

APPLES WE USED TO KNOW

MY FRIEND, Ralph H. Rose of South Kortright, Delaware County, New York, writes about old apple varieties that he loved when he was a boy:

"When late July comes, then August and September, I think of the good old times when we had on our farm—and nearly all of our neighbors here in Delaware County had—trees of Red Astrachan and Chenango strawberry apples ripening. Looking back now, it seems as if there was nothing quite so good as a strawberry apple that had hung on the tree until thoroughly ripe.

"At present, I know of no tree of this variety anywhere in this locality. I wonder if this is the case in other sections. If so, the Northeast has suffered a real loss.

"Here on my farm before the first World War, I counted 40 varieties of apples growing on our old grafted trees, most of them kinds which one could not buy today."

I asked my friend, Prof. Arthur J. Heinicke, Head of the Pomology Department at Cornell, for information about the strawberry apple. In reply, he said:

"Many of the older growers remember the Chenango, but none that I have talked to have any trees still living. We do have a bearing Chenango tree in the Cornell orchard at Ithaca, and there is one in the Experiment Station at Geneva. The variety is no longer propagated in commercial nurseries, but the New York Fruit Testing Cooperative at Geneva will furnish cion wood or grow the variety on request.

"The Chenango apple, also known as the Chenango Strawberry or Strawberry, was at one time regarded as an excellent early fall variety for the home orchard or for the local market. It does not ship well and soon loses its flavor in storage. Like many of the other varieties that are not endowed with good commercial characteristics, the Chenango is gradually going out of the picture."

In addition to the early Red Astrachan, there was an early Harvest Sweet in our home orchard that was just grand to chaw into when we were riding on the hay riggin' after a load of oats.

The family orchards that most of us knew when we were young have nearly disappeared. It doesn't pay commercially to maintain the equipment and do the work necessary to growing good apples in a small orchard, but it certainly would be grand to see some of those old varieties again.

However, there are compensations for the loss of the old varieties. Late in May, we bought Northern Spies from the Cornell apple orchards that were just as firm and good as when they were harvested. They were processed by new scientific methods of cold storage. When I was young, the only apples we had left late in winter were some tasteless, withered Russets. Remember them?



To a man or woman who loves cows, there is a sense of contentment and security to see a herd of fine cows waiting at the gate at milking time on a late summer afternoon.

PAYOFF TIME

SINCE moving off the farm, I have had the value of gardens impressed on me all over again. No matter how good they are, you just can't buy vegetables from the store that taste like those fresh from the garden. Not only sweet corn but most other vegetables need to be cooked as soon as harvested.

August and September are the payoff times for good gardens. I hope you are enjoying yours.

ONE WAY TO ENLARGE YOUR FARM

WHEN I got my first tractor, I planned to hire a bulldozer to clean the brush out of a couple of ditches that separated three good meadows so that I could plow nearly a quarter of a mile without turning around. But pressure of other business prevented me from doing it.

No one can ride in an airplane over the Northeast farm country without being impressed with the way hedges are taking over. Not only do they take up good land, but they harbor insect and disease pests, make cover for woodchucks, and prevent efficient operation of modern farm equipment.

Before buying additional land, perhaps you can enlarge your fields and your farm by clearing out the hedges.

PLOWING BY AIR!

MANY of you will remember the old side hill reversible plows. It was about all a boy could do to raise the handles and reverse the moldboard each time across the side hill lot. Added to the difficulties was the fact that much of the time the moldboard did not clean well, and when the point struck a rock or a root, the plow would jump out of the furrow and have to be hauled back so as not to "cut and cover." It was a big day's work to get an acre done.

What a long way indeed from the side hill plow to the modern multiple tractor plow! And now the scientists and the inventors tell us that soon we may be making another big jump in plowing efficiency by using an air lift from a compressor run by the tractor power takeoff to help raise and turn the furrow after it leaves the point of the plow.

What next?

EASTMAN'S CHESTNUT

WHEN a person shoves a hobby a little too far, he is sometimes called a "nut". For example, there are fishermen nuts, bowling nuts, and garden nuts. Well, one day a golf nut knocked the ball into the "rough" near the highway. Scratching around trying to get it out, he suddenly straightened and stood at salute while a funeral procession went by. When it had passed, his companion said to the golfer:

"That was nice of you to show respect like that for the departed soul."

"Well, why shouldn't I?" replied the golf nut, "after all, we've lived together happily for 25 years!"

Service Bureau

ATTEMPTED SWINDLE

"Some time ago, a man named James Wilson came to my home, posing as an inspector from the Public Service Gas & Electric Dept. He said a leak in my gas pipe had been reported, and he went down cellar to check. He called me down and touched a match to the pipe where it entered the house. It blazed up. (Police discovered later that he had sprayed the wall with lighter fluid.)

"He told me that, in order for me to stay in the house until they could get this repaired, it would be necessary that I post a $1,500 bond, which would later be refunded. When I told him I could not do that, he agreed to a $500 bond, and was sending his engineer to pick up the money after I had been to the bank.

"I was skeptical—it didn't sound like Public Service to wait a week to repair a gas leak; so I talked with the bank director and, after checking with Public Service, he notified the police. When the man called to pick up the money, the Chief of Police placed him under arrest, and within a few minutes two other men were arrested.

"Perhaps my experience will be helpful to someone else, and will emphasize the importance of reporting such an experience to the police at once."

In March these men, who were guilty of conspiracy to defraud, were sentenced. James Wilson received 3 to 5 years in N. J. State Prison; complaint against one was dismissed; and the other got 1 year in the workhouse.

Miss Elizabeth Crabiel of Milltown, N. J., was the victim of this attempted swindle and, because it was upon the information she gave the police that these men were caught and imprisoned, we are happy to send her our $25.00 Service Bureau reward which is offered in the case of fraud or attempted fraud against a subscriber.

IT HAPPENED IN NEW JERSEY

One of our Garden State readers writes:

"You had an article some time ago about those 'shysters' who want to paint roofs, then in a month or so there is no paint left to see.

"This happened at my home several days ago. I was away for a few hours and, when I returned, 2 men had painted the front half of my roof. I asked one fellow for his credentials and he said his name was Miller. When I told him I was going to call the Better Business Bureau to check, they both took off. They had a Georgia license plate; and the fellow I talked with was very brown and had coal-black hair."

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mrs. Fred Elling, Penn Yan (refund on material)	$ 6.64
Mrs. Ruth Saxton, Bath (refund on spoons)	6.00
Mrs. Stanley Clifford, Carthage (refund on vitamins)	36.00
Mr. G. Norman Smith, Hudson (settlement of claim)	62.05
Mr. James Dempsey, Troupsburg (refund on supplies)	8.30
Mr. Robert Patten, Lawrenceville (refund on parts)	26.25
Mr. Harold A. Latham, Orient (refund on plants)	2.25

MASSACHUSETTS

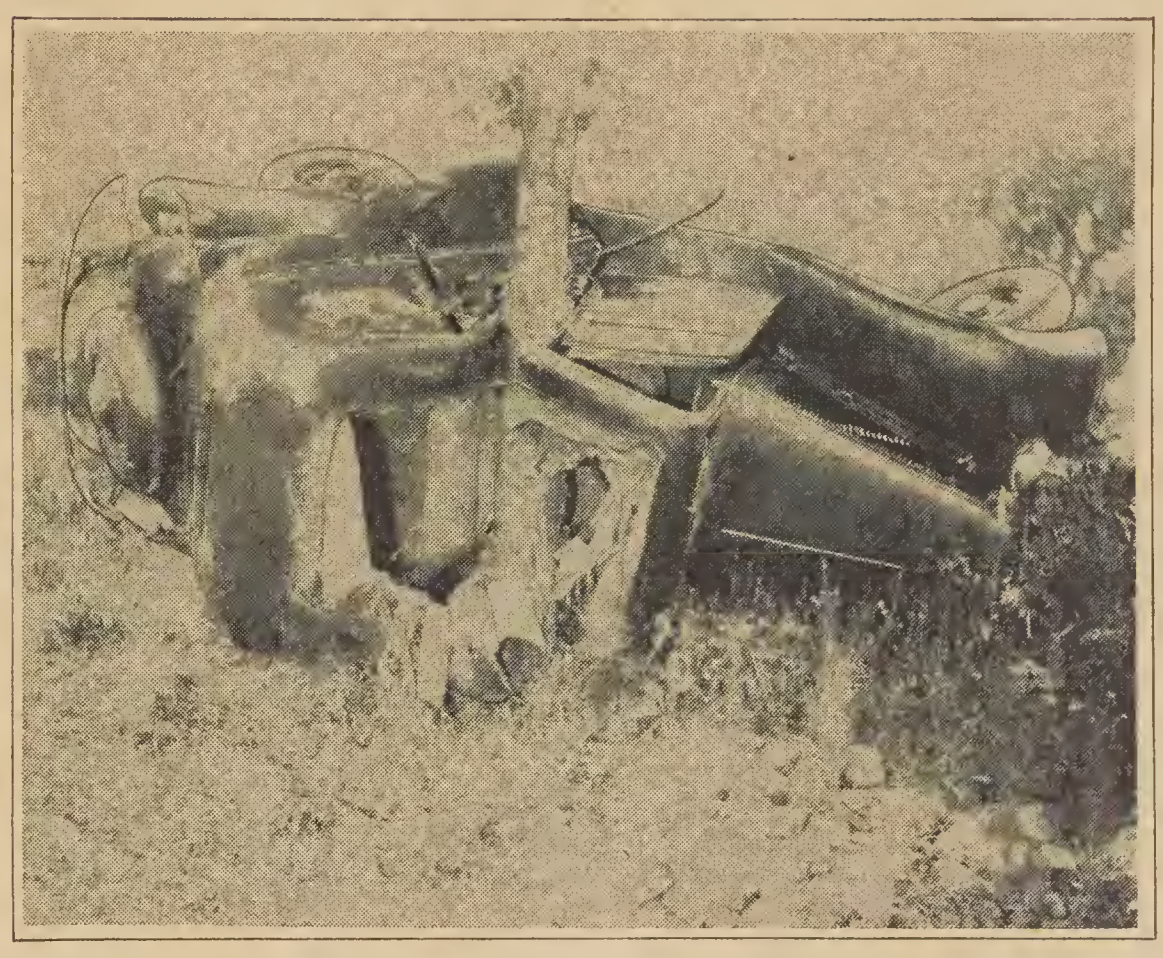
Mrs. Ralph Tanner, No. Adams (refund on quilting goods)	1.39

CONNECTICUT

Mr. Peter Behuniak, Seymour (refund on plants)	4.15

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EXPOSITION

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All of the popular features have been retained—the Horse Show . . . Million Dollar Farm Machinery Show . . . dairy and poultry, pigs and sheep . . . fruits and vegetables . . . Flower Show . . . Indian Village . . . stock car races.

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It's a week earlier than usual so children can attend more easily. All exhibits open from 10 a.m. to 10 p.m., every day and night.

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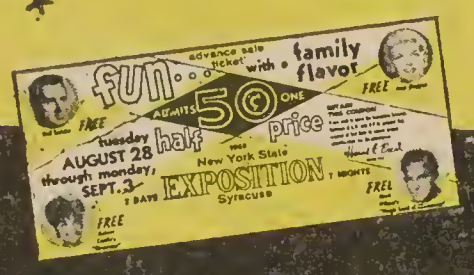
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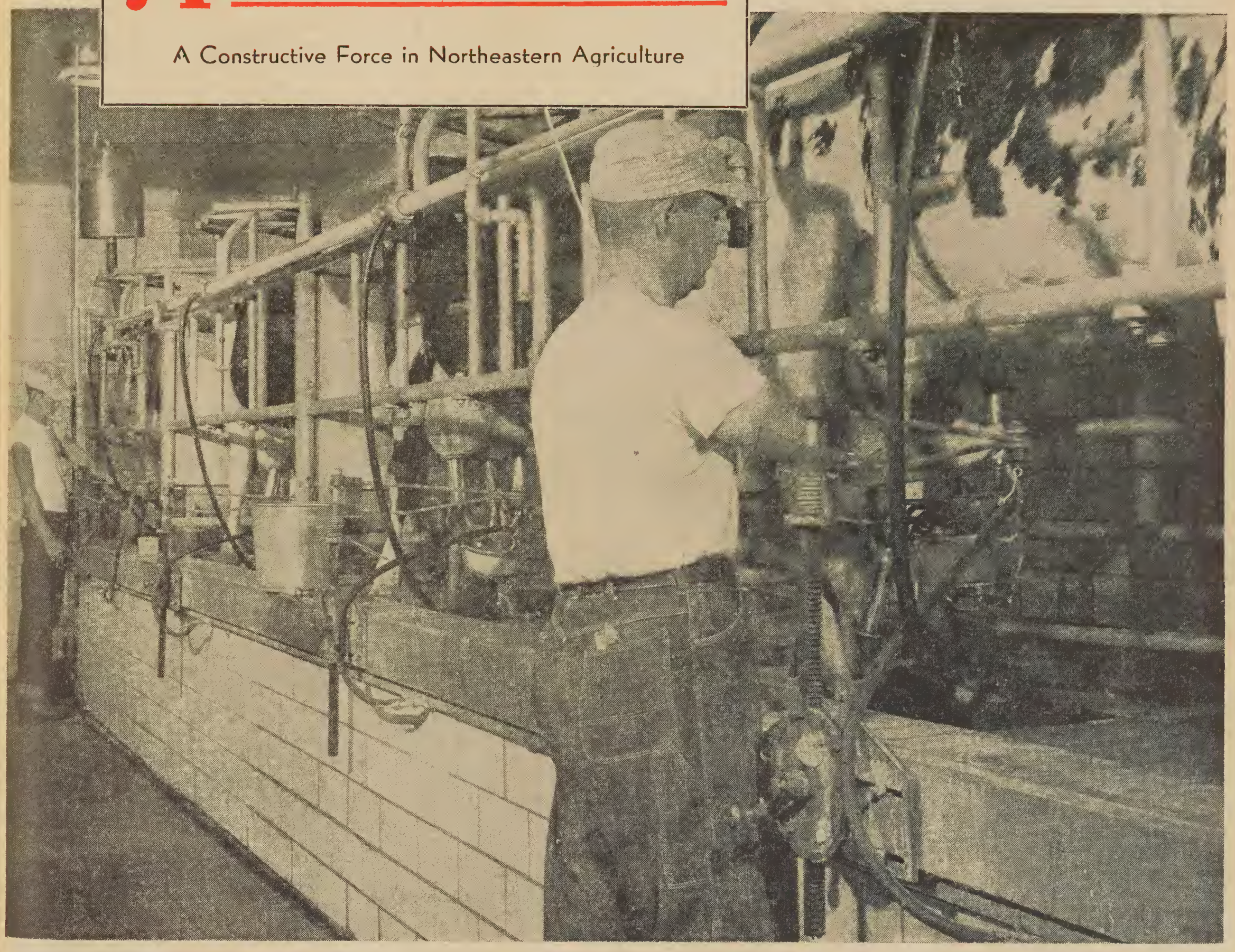


Founded 1842

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

SEPTEMBER 1962



The Art of GOOD MILKING

By Ed Harrison

ECONOMICS HAVE rapidly placed the art of hand milking in the archives of time. This fact, however, does not in any way erase the need for and the importance of good milking technique. The milking machine represents a necessary and a progressive development in economic milk production. But, since the invention of modern equipment, there has never been any other piece of equipment so misused and abused as the milking machine.

Many operators seem to look upon the milking machine as a self-operating mechanical gadget; that all they have to do is press the button that starts the pump and the machine takes over. The manufacturers of milking machines have not tired in their efforts to produce a more efficient operating machine. Unfortunately, they will never be able to develop a self-operating machine and, regardless of the perfection they achieve, their machine will never be any better than the operator.

Few seem to realize the almost unbelievable influence that milking procedure can have upon production. From our own experience we have proof that, when working with cows capable of high production, almost unobservable differences in milking technique can influence annual production by as much as 5,000 pounds per cow.

Rather than trying to point out some of the common mistakes in machine milking, I would like to start with the heifer as she approaches calving time and outline in some detail what I consider good milking procedure.

The first milking of a heifer represents an entirely new experience in her life. I believe that we should do everything possible to condition her for it. At least a week or 10 days in advance of the calving date she should be brought into the barn so that she can become adjusted to having people work around her. A little time spent in massaging the udder can be very helpful.

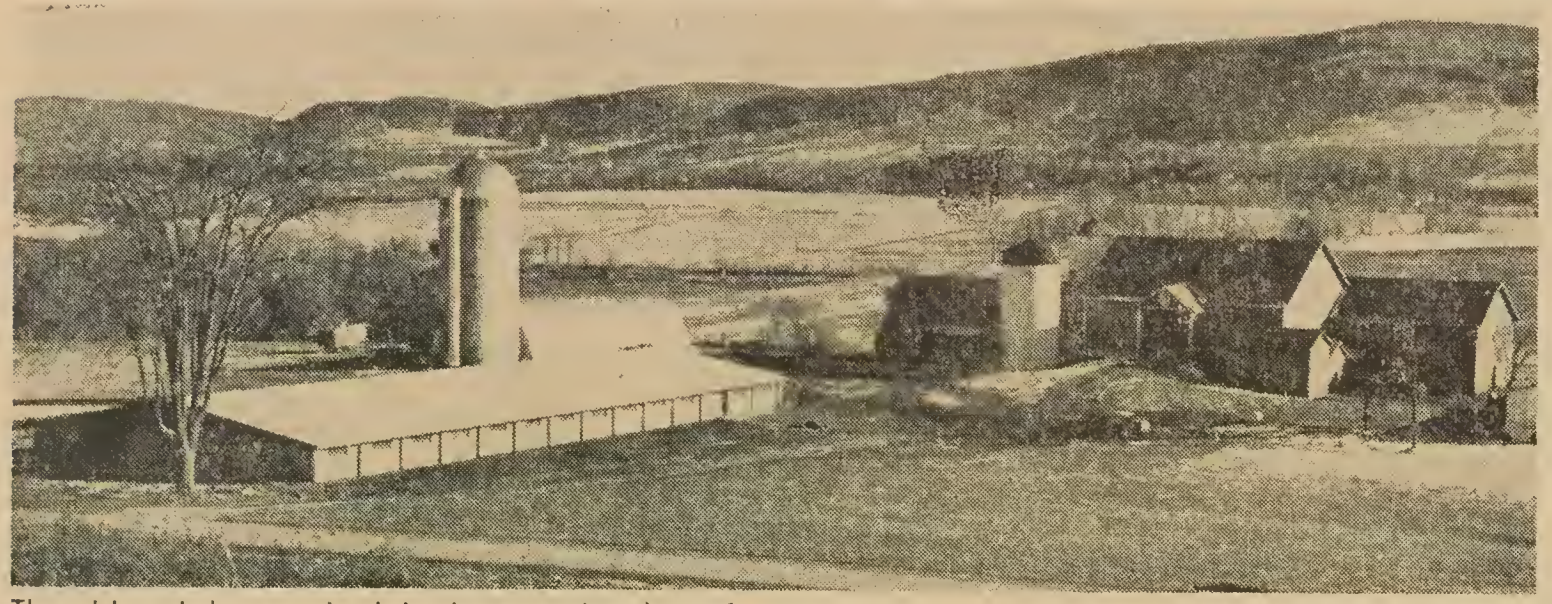
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Becker's 4-row stable has 120 stanchions, room for 24 more.



The old and the new in dairy barns, taken just aftercompletion of the new barn in the fall of 1961. Another 20' x 50' silo has recently been added alongside the one pictured at left.

Built A Better Barn

Peop'e have been beating a path to this dairyman's door to find out how it was done.

By GORDON CONKLIN

WHAT KIND of a dairy barn does a man build after visiting 87 barns in 5 states for construction ideas over a three-year period? The man in question—Roger Becker of Cobleskill, New York—believes in taking a long look before investing a bushel of that long green, and resolved right at the start to "build a barn the cows could pay for."

A few years ago his old barn, besides being obsolete, was also being outgrown. Too many cows were having to "go down the road" because of udder injuries, foot problems from mud and stone bruises, etc. As the milking herd number moved up beyond 100 cows, it became obvious something would have to give —especially since Roger's four sons showed interest in farming.

Roger collected published information from all directions and accumulated a whole suit box full of bulletins and clippings. Howard Loomis, then associate county agent in Schoharie County (and now New York DHIC fieldman), helped with suggestions for plans, and by recommending farms to visit. Roger traveled far and wide to "ask the man who owns one" and find out how different types of barns were doing on the firing line.

Finally, the research work was all done, the major decisions made, the slide rule thoroughly exercised—and the time came for the countdown. After Roger pushed the "Go" button, contractor Bert Schulte (also of Cobleskill) carried the ball. When the dust settled and the echo of hammers died away, here is a brief description of what this 175' x 64' four-row dairy barn is like:

Walls consist of 8" lightweight cement blocks filled with vermiculite insulation, placed on footings 2' wide and 1'-1½' thick. Every 13' along the wall, a vertical pilaster gives added strength; a steel rod anchored in the footing runs up through each pilaster and bolts through the plate, made up of two joined 2 x 8's. On the footing rests a 4" drain tile covered with 12" of No. 2 crushed stone. Walls are sealed with two coats of cement sealer outside, one coat inside.

Windows are glass block, set flush with the inside wall and provided with a plastic seal at the top to allow for expansion and contraction of the concrete. There are also expansion joints in the wall itself every 24'.

Roof is covered with double-lapped roll asphalt roofing that is cemented and nailed; the layers below go in this order: roof deck of special agricultural plywood (waterproof and fume resistant), a 4" air space, 2" of glass wool blanket, and finally embossed aluminum sheets to make the stable ceiling. The roof slope is 2" in 12". The roof rafters, all 24" on center, are 2 x 6's on edge for the outside span and 2 x 8's for the longer center span. Each rafter is anchored to the purlins with rafter ties that "lock" the building together from roof to footing.

Pipe used included 4" boiler tubing for purlin support posts. These were set on 2' x 2' concrete piers before the floor was poured; a steel plate at the top bolts the post to the purlin.

Tie stalls are homemade, again with used boiler pipe (cost 4¢ per pound) except for the vacuum line which is new 2" galvanized pipe. The vacuum line, the top of which is exactly 36" above the manger, doubles as a tie rail for the stall; neck chains are fastened to a log chain repair link welded to the 2" pipe. Cost of materials per stall, including water line, figured out to $18-$19.

Floor is concrete reinforced with wire screen and is 5" to 6" thick. An expansion joint between the floor and walls is made with a ¾" homosote strip; the floor concrete is sawed at each wall expansion joint.

The feed alleys are flat, 6' wide, and 3" higher than the cow bed. The stall curb slopes toward the cow; its top is 11" above the platform, 8" above the manger. Half of the cow beds are 6' long by 4'6" wide; the other half are 5'8" long by 4'3" wide. The drive alleys are slightly crowned, are 7' wide—gutters are 18" wide and are 9" deep on the stall side, only

(Continued on Page 14)



Roger Becker (left) discusses blueprint with contractor Bert Schulte.



Herdsman Warren Proper teams up with Ivan Brown to feed green-chop.



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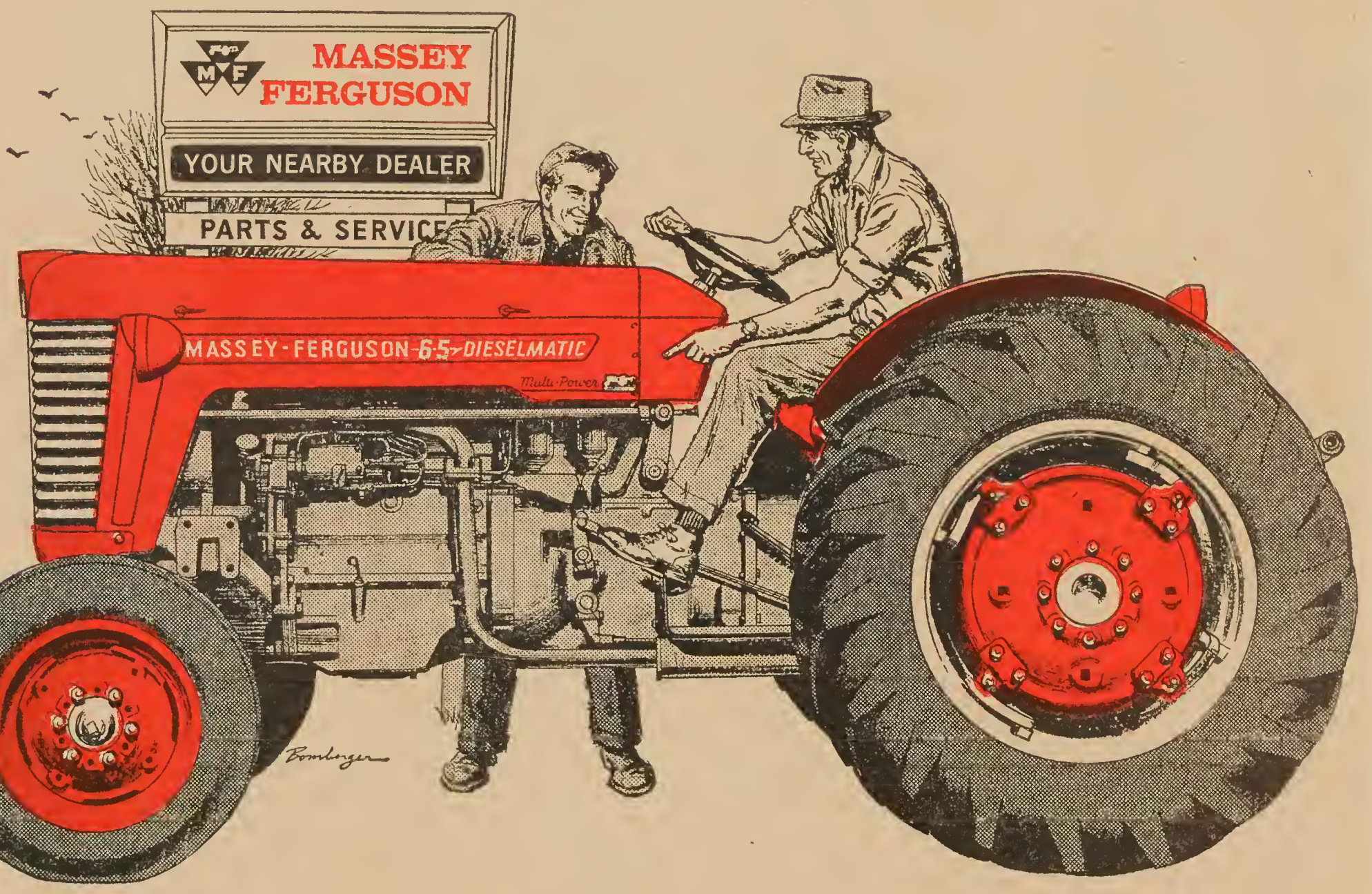
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Editorials



By Gordon Conklin

MODERN TEA PARTY

THE NIGHT was bitterly cold outside Faneuil Hall, but the angry voices inside its walls were turning the air a heated blue. Only the day before, a group of men dressed as Indians had thrown three shiploads of tea into the Boston Harbor, an act now being discussed at this meeting of businessmen. The Hall stilled as an authoritative figure mounted a chair and began speaking.

"Those sophomoric nuts have ruined our colonial image," he said. "Didn't they know that the tax to be raised on that tea was to be used to pay subsidies to businesses that were overproducing? Only a week ago I talked with the Lord High Commissioner and he assured me that I would receive, from tea tax funds, 500 pounds sterling for every ship that I did not build in my shipyard.

"So now these damned hotheads piously talk 'principles', saying that taxation without representation is wrong. If they don't like the setup, why don't they just stay out of the program instead of acting like a bunch of schoolboys and ruining the deal for the rest of us? Besides, everyone else is being subsidized by funds drawn from the Stamp Act, the Sugar Act, and the Townshend Act—why shouldn't we have our share?"

A tall man sitting quietly amidst the hubbub addressed the speaker:

"Mr. Winthrop, you have four sons, do you not?"

"Why, yes. But what's that got to do with this?"

"I assume," the questioner went on, "that you have always advised them to leave the painted ladies at Ye Olde Ramshead's Inn alone."

"Get to the point, man!" Winthrop roared. "Of course I've always told them that!"

"But, Mr. Winthrop, you and I don't need the research of Professor Kantsay at Harvard to know that adultery is quite common. Are you, then, ready to abandon a principle and recommend to your sons that 'since everyone else is doing it' they'd better get their share before it's too late?"

Livid with rage, Winthrop almost choked as he grated out a reply: "The next thing we know, Smythe, you'll be bringing religion into this thing. I suppose you'll be comparing these irresponsible show-offs to Martin Luther when he drove nails into a cathedral door."

"No," Smythe replied. "I'm no theologian—and I don't think the comparison is very apt anyway. But I'll back the men that jumped those tea ships and did something dramatic to call attention to the violation of a basic principle.

"I'd like to debate this some more," he continued, "but I've got to go. A friend of mine asked me to be sure and bring him the best horse I own. Maybe you know him—name's Revere."

PEACE CORPS

EARLY ON THE morning of September 15, 1961, a young American stood before a desk in a classroom in the African country of Ghana and introduced himself to his students. This moment—though few were aware of it—marked the beginning of the Peace Corps on the job.

Although it has had its problems, the Peace Corps has become widely accepted as a constructive attempt to help "underdeveloped" nations help themselves. It is almost impossible for Americans to understand what a leading agricultural specialist said about one country in which he had worked—"The introduction of a scythe and cradle would be a 1,000 year step forward there."

An associate of the late Mahatma Gandhi, commenting about the Corps, said, "Yours was the first revolution. Do you think young Americans possess the spiritual values they must have to bring the spirit of that revolution to our country? There is a great valuelessness spreading in the world, and in India, too. Your volunteers must not add to this. They must bring more than science and technology. They must be carriers of your best values and ideals. Can your Peace Corps touch the idealism of America and bring that to us?"

Apparently, it has.

BACK TO SCHOOL

I REMEMBER WELL the one-room schoolhouse where patient teachers first tried to put something inside my rebellious skull. The wood floors smelled of the oil with which they were mopped each week; a chunk stove warmed the room and heated a big kettle of soup for supplementing the lunches we brought from home. Each boy had to take his turn at carrying drinking water to the school from the pump of a near-by house; each girl was assigned in rotation the task of cleaning the blackboard and "batting" the chalk dust from the erasers.

To the teacher of today, I want to offer encouragement for your efforts at a job so enormously important. In your hands is power to shape young lives constructively.

To the student, let me repeat what you've heard before about the importance of all the education you can absorb. Not only does it pay off in dollars, but also in that elusive thing called "happiness." As the years go by, you will find your greatest satisfaction in worthwhile accomplishment; the more you learn and the broader your interests, the greater can be your inner abundance.

To each parent goes a heartfelt plea to "back up" your children by being interested in their efforts at school, by helping them through the rough spots, and by constant encouragement in the direction of doing their very best. And may you not cringe too sharply when you receive your school tax notice!

TAX PROBLEM

WITHOUT EXCEPTION, most of us would characterize taxes with two words—"too high." As support for our grousing, we could point to the fact that the average New York State resident began working for himself on Monday, May 14—up to then, his 1962 earnings went to local, state, and federal taxes. Keystone Staters in some areas could remind us that they are paying an income tax of 1 percent on their income, levied by school districts. Furthermore, did you know that 10 million Americans are reported to be paying income taxes imposed by the city in which they live?

But farm people in New Jersey are, in our book, having about the roughest time of all. Between 1950 and 1960, property taxes increased 81 percent for the average urbanite in that State, but jumped 401 percent for the average farmer. The typical New Jersey farmer pays about $1,100 in real estate taxes each year; taxes per farm acre there are five times that of Pennsylvania, four times that of New York State, and ten times that of one of its chief agricultural competitors, Florida.

Without a State income tax or sales tax, real estate has had to carry the ball to produce public funds—and real estate owners are just about winded. Just to complicate things further, the courts threw out a law requiring agricultural land to be assessed on the basis of its productivity in farming, rather than in terms of its potential value for suburban or industrial development. Bluntly, Garden State farmers are in the process of being taxed out of business. A tiny minority of the State's voters, farm people must look to the electorate's sense of justice for legislation that will ease the situation.

A broader tax base is a must for New Jersey. As a people, we constantly demand more services from government at all levels. The system of taxation in the Garden State needs quick revision so that owners of real estate, particularly farmers, won't end up paying more than their share of the added costs of programs demanded by all citizens.

PLACE OF POWER

THOMAS JEFFERSON was a man whose words were sometimes hard to follow when he waxed eloquent. But there is one thing he said that deserves long and sincere study — especially at this point in the history of our nation:

"I know of no safe depository of the ultimate powers of society but the people themselves; and if we think them not enlightened enough to exercise their control with wholesome discretion, the remedy is not to take it from them but to inform their discretion by education."

AMERICAN AGRICULTURIST

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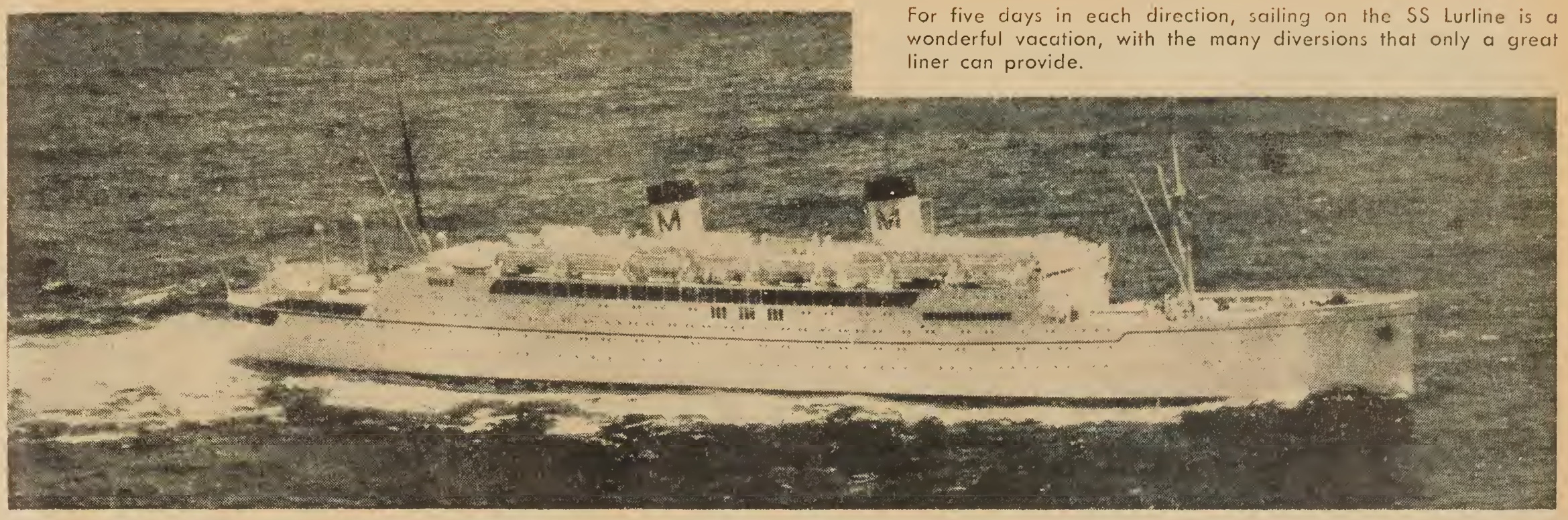
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See HAWAII With Us

ALL AMERICAN Agriculturist tours are wonderful experiences, but ever since our first Hawaiian tour in 1954, folks have come back saying enthusiastically, "That was the perfect vacation!" Intriguingly different, this mid-ocean playground offers new sights, new pastimes, and a delightful new way of life.

If you have been longing to visit the "Paradise of the Pacific," now is your chance to go the ideal way — with a congenial American Agriculturist party. The dates are December 28 to January 27, and again our official tour agents, the Travel Service Bureau of Needham, Massachusetts, are making all the arrangements. Those of you who have ever traveled with us know this means that nothing will be overlooked in planning a really marvelous trip.

On December 28, our tour group will leave for Chicago. There we will have a sightseeing tour of the city before boarding the Santa Fe Super Chief to begin the trip westward through Kansas, Colorado, New Mexico and Arizona.

Arriving in Los Angeles, we'll drive around the Hollywood-Beverly Hills area, and then on New Year's Day a real treat awaits us, for our party has reserved seats in the grandstand for the colorful Parade of Roses!

In San Francisco we'll visit Seal Rocks, Twin Peaks, and Golden Gate Park, and on the afternoon of January 3, board our luxurious cruise ship, the SS Lurline, for five enchanting days of smooth sailing and fun aboard ship. Beautifully appointed staterooms, spacious decks and lounges, wonderful meals, and every sort of entertainment imaginable help to make our cruise an experience we'll never forget.

When we arrive in Honolulu, native dancers and musicians will warmly welcome us with gay music and colorful leis of tropical flowers. After a short time for local sightseeing, we will leave Honolulu for the Island of Maui, and drive to Iao Valley to view "The Needle," a volcanic freak rising abruptly from the valley floor. The following day we will take a limousine to the summit of Haleakala, the world's largest dormant volcano, and then tour the Maui Pali coast, visiting Lahaina, former capital city of the Hawaiian Islands.

On January 10 we leave Maui and fly to Hilo on the large island of Hawaii. This is the orchid capital of the Islands, and we'll visit the nurseries which grow these exotic blossoms for shipment throughout the world. We'll also see Rainbow Falls, Hawaii National Park, Akaka Falls (which are higher than Niagara), and pass through the vast Parker Ranch on our way to the quaint town of Kailua on the Kona Coast. Before leaving the Island of Hawaii, we'll also visit the City of Refuge, Kealakakua Bay, and the site of Captain Cook's Monument.

After Hawaii will come another beautiful island, Kauai, known as the "Garden Isle." An excursion by motor launch will take us up the Wailua River to a lovely fern grotto, and we'll also see acres of waving sugar cane, rice paddies, and field upon field of beautiful tropical flowers.

On January 15 we go back to Honolulu, and the next three and one-half days are spent on the famous Island of Oahu. While there we'll cruise through Pearl Harbor to see "Battleship Row," and the Koolau Range, and drive past mile upon mile of pineapple fields and banana groves. We'll have ample opportunity to swim, shop, loaf, and enjoy the thrilling tropical scenery.

When the time comes for us to say "Aloha," our ship, the Lurline will be waiting, and our homeward voyage will be another relaxing cruise with time to sunbathe, chat with new friends, and thoroughly enjoy the luxurious shipboard life.



On the Island of Maui we'll see "The Needle," a fern covered spire rising over 2,000 feet above the valley floor.

Back in Los Angeles, we'll lunch at Marineland of the Pacific and travel to Disneyland before reboarding the Super Chief for our trip to Chicago, and then to our homes.

Like all American Agriculturist tours, this is an "all expense" one, and we think you'll agree that the price of this glorious month-long trip is low for all it includes—all transportation, services of our tour escort, all Federal taxes; hotel and steamship accommodations, baggage transportation, all of the scheduled sightseeing, all meals and all tips. No other tour offers you so much at such a reasonable cost.

Fill out the coupon on this page and mail it today to get the attractively illustrated itinerary with complete information about the cost of this wonderful tour. An early reservation will assure you of getting the kind of accommodations you desire, and the deposit of $200 will be refunded if you should have to cancel later.

We hope you'll decide to go to Hawaii with us, and we can assure you that if you go, you'll have the trip of a lifetime in company with the nicest folks in the world and with absolutely no travel worries.



Palm - bordered beaches are a part of Hawaii's charm, and pictured at left is a scene along the historic Kona Coast near the "City of Refuge."

E. R. Eastman, President
American Agriculturist
Box 367-H
Ithaca, New York

Please send me, without any obligation on my part, a copy of your Hawaiian Tour folder (December 28, 1962—January 27, 1963).

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Grunt and Groan Guide

THE WORDS "materials handling" presently enjoy wide popularity among farmers, research workers, industry farm representatives, and writers. And rightly so, for there are huge tonnages of things to be moved around the farm. There is still enough "grunt and groan" from lifting, tugging, and pushing—but farmsteads are on the way to becoming as mechanized as the field.

Some of the folks at AMERICAN AGRICULTURIST recently had confabs with two men who are experts at moving things — Chuck Bauer, materials handling specialist for the Hood Foundation, at Boston, Mass., and Dick Guest of the Agricultural Engineering Department at Cornell University. Pulling together their comments and adding a few of our own, here are some principles to think about when planning how best to move a ton (or a pound) from point X to point Y without Z quantity of backache being in the formula:

1. **Shortened distances** — consider having hay chutes at several different places along a row of cows instead of at one point. A silage cart should be big enough to feed a whole row of cows, rather than making many trips. Store feed and bedding just as close to the point of use as possible.

A herringbone milking parlor offers less walking than a side opening parlor with cows in line. You'll have to walk about three feet per cow in the herringbone versus eight feet per cow with the in-line setup. Another way to shorten distances traveled is to use a milk transfer system or pipelines. Sure, we know many dairymen use a milk can cart, bring cans into the stable rather than carry milk all the way to the milk house. It is good materials handling, but bad sanitation.

2. **Slide it** — you can always slide

(Continued on Opposite Page)

(Continued from Opposite Page)

more than you can carry; try sliding bales ahead of a pitchfork instead of carrying bales along the feed alley.

3. **Use gravity** — overhead storage of grain that flows into the stable is an example. Most self-feeders make use of gravity to some extent—experimental upright silos, hay racks alongside ground level storage, and grain feeders for meat animals.

4. **Multiple use equipment** — some elevators can be modified to fill silo, granary, crib, and haymow; wagons can handle greenchop, grain, silage, and baled hay. Silage carts with removable sides can be used to distribute both hay and silage, and manure spreaders are on the market that can be used for both manure and silage (separately, of course). A front end loader on the tractor can be used for innumerable jobs, including doubling as a jack when changing tires.

5. **The following table**, compiled by Dick Guest, is a guide to the amount of investment in labor-saving equipment that will pay for itself. It is based on an eight-year equipment life, an asumed use 365 days per year, and includes an allowance of 10% of original cost for interest, insurance, taxes, repairs and operational costs. It's not claimed to be precise for all situations, but is handy as a starting point.

Minutes Saved Per Day	Here's how much you can justify investing in labor-saving equipment, depending on time saved and hourly value you place on your labor as shown below.				
	$.75	$1.00	$1.50	$2.00	$2.50
10	$ 200	$ 275	$ 400	$ 550	$ 675
20	400	550	800	1,075	1,350
30	600	800	1,225	1,625	2,025
40	800	1,075	1,625	2,175	2,700
50	1,000	1,350	2,025	2,700	3,375
60	1,225	1,625	2,450	3,250	4,050

6. **Make 'em do part of the work**—animals concentrate materials by the use of dropping pits, milking parlors, and groups of nests.

7. **Eliminate or combine materials** —maybe rubber mats will some day eliminate bedding. Some beef cattle feeders combine chopped roughage and grain in one ration that can be moved with augers. Most poultrymen use only one form of feed, easily moved by automatic feeders.

8. **Keep it headed right** — always keep the material moving toward the point of use or disposal, without costly detours or retracing of direction.

9. **Eliminate obstructions** — we heard recently of a man who built a new barn and then found his feeding alley was too narrow to feed silage with his self-unloading wagon. Give yourself plenty of room to maneuver.

10. **Pre-position for next operation** —leave the silage cart under the silo chute; park the spreader under the gutter cleaner discharge; leave the blower pipe attached to the silo. It often pays to have equipment hooked up and ready to roll the night before the big push begins.

11. **Eliminate detours** — cattle guards instead of gates are widely used in the West and would often be just as useful in the Northeast. There are also gates that can be easily opened without leaving a tractor or truck seat. Making a pto hookup is much faster than using a flat belt and pulley on feed grinders, blowers, etc.

12. **Be sure it pays** — automatic equipment pays for itself only if you have something productive to do with the time saved. If you stand and watch equipment run, it may help your back — but probably not your pocketbook.

13. **Bigger batches** — side boards should stand tall on wagons handling chopped hay or bales from kicker balers. Bulk handling offers real opportunties for larger loads—for milk, fertilizer, or feed.

14. **Go loaded** — try not to make many "deadhead" runs; try instead to have a payload in both directions.

15. **Wring it out**—wilting grass reduces by many tons the amount of water carried to the silo. Don't haul corn on the cob long distances—shell it before loading.

16. **Change shape** — pellets flow better than ground grain. Small square bales can be handled with a pitchfork, tossed off the wagon instead of having to walk back and forth to carry them. Silage cut short blows easier and works better with an unloader.

17. **Uniformity of material** — consider possibility of handling roughage as grass silage, corn silage, and chopped hay to standardize method of moving and also reduce equipment inventory.

Easier Egg Handling

PREPARING EGGS for sale is a job that takes a lot of time, and Professors R. J. Williams and J. S. Tobey of the Department of Agricultural Economics at Cornell University set out to show that the job can be simplified — another way of saying that using good old common sense often makes the job easier.

Listed below are some of the suggestions brought out in their study:

Materials Handling

1. Moving materials in quantity saves time, so use skid or hand trucks to move eggs to and from storage.
2. **Locate the storage room convenient to the packing area, and to the loading platform.**
3. Don't handle eggs any more than absolutely necessary; it affects the quality.
4. **Pack the eggs directly into the selling container as they come off the grader.**
5. Maybe a conveyor belt will help speed up the job.
6. **Keep storage areas and cooler space well arranged and orderly, and keep the aisles clear of obstructions.**

The Workplace

1. Keep tools and materials, for example cartons, close in front of the operator.
2. **Consider moving the eggs directly from the washing station to the candling workplace.**
3. See that cartons are moved away from the packing station so that the packer does not have to stop to move them.
4. **Provide shelves near the candler for undergrades, and adequate storage before and after each workplace.**
5. More work will be accomplished with a change of position. Provide for alternate sitting and standing. Thirty-eight inches in the best average shelf height; twenty-nine inches the best stool height.
6. **Good light is essential so that the packer can do a good job of checking.**

The Worker

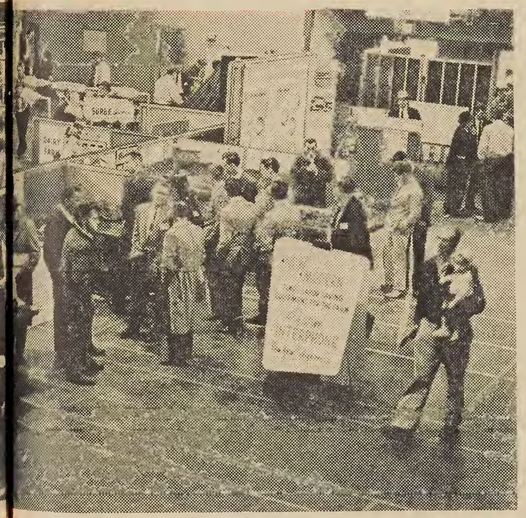
1. Use both hands; a one-handed packer is only half a packer. Work out a system of body balance in unison with the movements of the hands, and develop a rhythm.
2. **If possible, move cases with mechanical aid to save energy.**
3. Have a shelf to hold the carton while it is being packed.
4. **Light and machine switches should be located near the worker.**

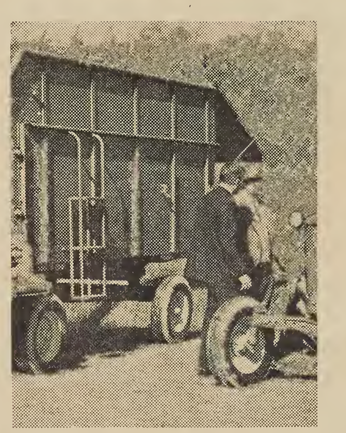
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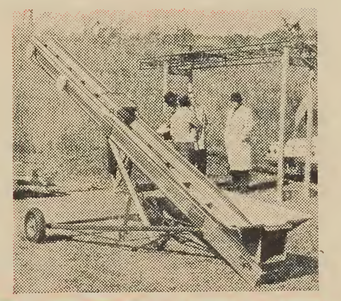


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September 26 & 27
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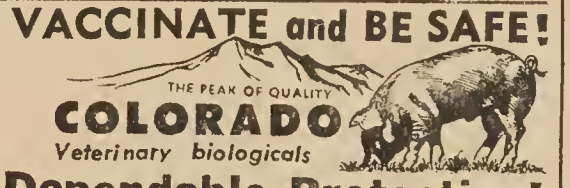
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Dr. Naylor's **BLU-KOTE**

AA's Farm Dollar Guide

AUGUST 30 is the date for referendum on wheat marketing quotas for the 1963 crop (was postponed pending possible legislation by Congress). If eligible voters approve, allotments will be on national basis of 55 million acres with acreage support of $1.82 per bushel. If turned down, supports will be $1.21 for those staying within allotments; no supports for those who overplant.

GET FORM 2240 now from bank or county agent and file before September 30 for refund of 4 cents per gallon federal tax on gas used for farming July 1, '61 to June 30, '62.

WITH A SHORT HAY CROP, plan to cut corn silage when it will give the most nutrients (when grain is nearly fully dented). At this stage moisture content is lower, so pack carefully. If frost hits, put corn in silo fast.

AGRICULTURE HANDBOOK 230 (35 cents) shows how to figure interest rates and social security benefits, estimate depreciation rates, and much other information. Ask for it from Superintendent of Documents, Washington 25, D. C.

NATIONAL POTATO ADVISORY COMMITTEE ASKS that hearing on proposed national potato marketing order be resumed, if not before September 15 then not until after election. They suggest eliminating volume regulation from original proposal; excluding anyone raising less than one-quarter acre potatoes; requiring grade labeling; and identification of state where produced for potatoes marketed as fresh.

THIS MAY BE BAD YEAR FOR APPLE SCALD. Professor Robert Smock of Cornell says it can be reduced by (1) picking at right time; (b) storing promptly; (c) cooling fast; (d) keeping storage period short as feasible; (e) using "Stop Scald" or DPA as directed.

ADMINISTRATOR BLANFORD ESTIMATES FALL UNIFORM MILK PRICES in the New York-New Jersey area as follows: August, $4.22; September, $4.31; October, $4.39: November, $4.46; December, $4.30. For last six months of 1962, price estimated averages 12 cents below '61.

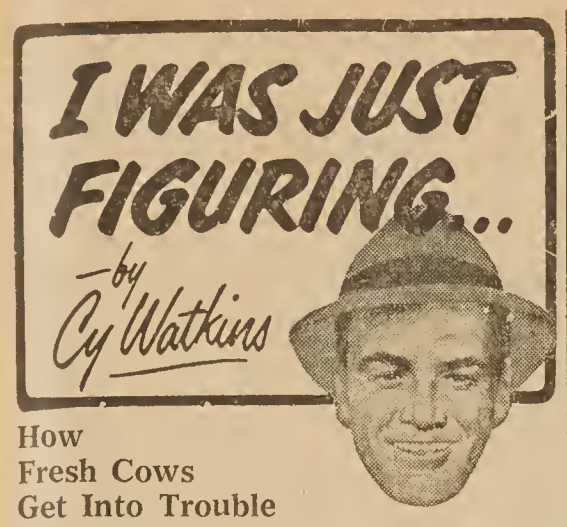
IF SHORT OF HAY, do careful figuring on relative costs of hay and grain. After providing a minimum of one-half pound of hay per 100 pounds live weight of cow per day, buy additional feed (hay or grain) on the basis of lowest cost per pound of total digestible nutrients. Silage can replace hay at rate of 3 pounds per 1 pound of hay.

The Song of the Lazy Farmer



MY HIRED MAN complains 'cause he got stuck with what he says must be a farmer who's more years behind than any other you could find. It's bad enough, that sissy roars, that all the plumbing's out-of-doors, or that he strains his eyes at night to read without electric light, but surely no one else today would think of putting up his hay by sending some poor slave to sweat out in the broiling sun to get it loaded on a team-drawn rack with just a fork and aching back.

If I were him I wouldn't scoff, he doesn't know when he's well off. He gets a wage that's pretty good and saves most of it like he should, because by sundown he's worn out and not inclined to gad about; he's int'rested in bedding down instead of having sprees in town. But I'm not worried anyway, I'll never live to see the day when I'll be forced to do the work; despite his looks, that guy's no jerk, he knows Mirandy can't be beat at fixing up good things to eat, and no sane man would ever quit and forego that fringe benefit!



How Fresh Cows Get Into Trouble

Some folks think of a fresh cow as being in prime condition . . . that she's had a rest; she's sitting on top of the world and raring to go. That's one way good cows get into trouble.

Actually, the dry period, and calving, and the heavy milk flow that follows can start a vicious circle of declining body reserves that may never be reversed unless the right feeding practice is followed.

Remember, the dry period is a time of heavy demand for nutrients. It's also a time when the cow is apt to be "short-changed", nutritionally. (Roughed thru on a poor pasture and little or no supplement.)

Then, when she delivers, she's already run down. Yet nature forces a heavy milk flow to feed the calf. And if the ration you've got her on isn't a good one, her body goes down and down and in a few years, she's ruined.

Of course, nobody does a thing like this on purpose. It's because some people don't understand what's happening. Take the Vitamin "A" problem for example.

First. During the dry period your pastures are apt to be short of carotene, so she doesn't get enough "A" to start with.

Second. Recent evidence indicates that when a cow is deficient in Vitamin "A", she is not able to **utilize** carotene very well, so even if she gets good roughage when you start milking her, she may not be able to convert that carotene to "A" because she is already deficient. (And the deficiency gets worse.)

Third. We know that carotene oxidizes rapidly, and hay that was loaded with "A" potential when it was put up may have little or none now ... or it may be "tied-up" chemically so it is not **available** for use.

Put it all together and you can see that if a cow goes into the milk line deficient on "A", she doesn't have a very good chance to "catch up" unless you supply supplementary Vitamin "A".

The Vitamin "A" supplied in Watkins MIN-VITE solves the problem. First, on the Watkins Program, you feed the dry cow so she doesn't get deficient. Second, even a deficient cow can utilize all of the "A" provided by MIN-VITE (where a deficient cow can't convert natural carotene to usable "A" efficiently because of her deficient condition). Third, the Vitamin "A" in MIN-VITE is THERE. (It's protected from oxidation). And it's AVAILABLE. (Not tied up chemically.)

Of course, as important as Vitamin "A" is, it's only one of many important benefits of a Watkins dairy program. Watkins MIN-VITE for Dairy and Stock Cattle can be mixed in the supplement we recommend, or used to fortify your present ration. It provides guaranteed amounts of the MINerals (major and trace) and the VITamins dairy cows need.

You get the benefits of better balance and better nutrition for production, feed utilization and health. I hope you'll talk it over with your Watkins Dealer, next time he calls.

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Question Box

I am a tobacco grower and have a crop that is 12 years old. I roll my own cigars but they don't hold fire as well as I would like them to. What could I do to have it hold and have a better burn?

Being a tobacco grower, you are well aware that the burning quality of the 12-year-old leaf you have was largely determined by the way it grew in 1949 or 1950. The kind of fertilizer, kind of soil, kind of growing season, and kind of curing season all determined the ratios in the leaf of burn improvers like cellulose, nitrates, potash, and calcium to the burn destroyers like chlorine, proteins, and sulfates.

For what to do now I have three thoughts: Possibly—but not probably—since you like the taste of the tobacco there is some protein left that could be reduced by further sweating under moist conditions and warm temperatures. Secondly, if the problem is burn rate in the completed cigar, you might make the roll a little looser to allow better air flow and thus better combustion when you are not puffing it. Thirdly, since you are consuming your own tobacco and not selling it, you might try casing the tobacco with a weak solution of potassium nitrate.

I have no experimental evidence on recipes for this third suggestion, but I know that potassium nitrate is added to some of these new tobacco sheet materials to improve burn. You might start with a weak solution of one ounce potassium nitrate in 3 quarts of water (about a 1% solution), moistening a small amount of tobacco with the solution, and then let it absorb into the leaf and try it for improved burn. If there is no improvement, make the solution a little stronger. Doing this might well affect the taste also, of course, so I would suggest trying only small amounts of tobacco.

—Prof. G. S. Taylor, Univ. of Conn.

Is there any easy way of estimating the grain loss in harvesting corn?

If corn is shelled in the field, mark off several areas 40 feet square. Count the kernels in the squares and average them. Each 20 kernels represents a bushel loss per acre. With the picker, one good-sized ear in a 43-pace length of row is equal to a bushel per acre.

Is there any reason why corn silage should not be fed to dairy calves?

In former years some dairymen felt corn silage should be avoided for calves. However, recent trials show no bad effects where silage was fed almost from birth. In fact, calves on test show slightly better growth when fed silage.

Are enough apple trees being set to maintain production?

While the number of fruit farms has decreased, the number of trees per farm has increased so production has been maintained fairly steady. In 1959 in New York State the proportion in numbers of bearing trees compared to the total was higher for apples, pears and sweet cherries than it was in 1949, but it was lower for peaches, grapes and sour cherries.



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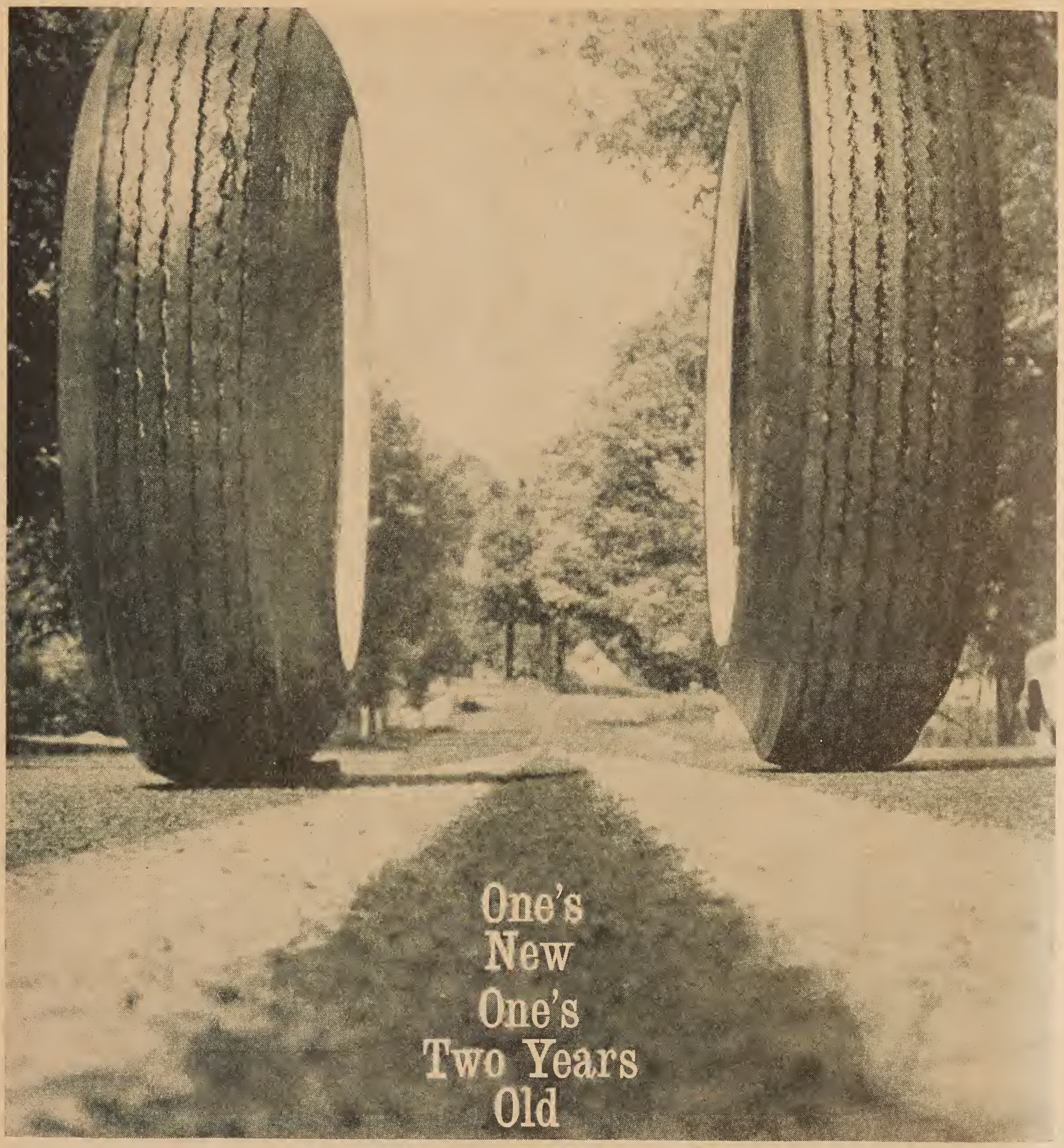
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Fall Forage Management

By WALTER L. GRIFFETH*

THROUGHOUT the Northeast many farmers are faced with a shortage of forage for the 1962-1963 winter feeding season. In a large part of the area, rainfall has been much below normal from mid-May through July. Because of this, first and second-cutting hay yields have been low on many fields in the drought area.

In spite of low rainfall, corn looks good where fertilization and weed control practices have been used. The fate of the corn crop in fields that have had fertilization and are relatively free of weeds was determined by the weather during mid-August. Even though much of the corn is short, if weather conditions favor setting of a good grain crop, there is still a chance to produce satisfactory yields of corn silage on these fields. The weedy, low fertility fields stand out like a "sore thumb."



W L. GRIFFETH

New York county agricultural agents report similar experiences with the first and second-cutting hay crop. The fields that contained a reasonably good stand of legumes, and where farmers have maintained a desirable fertility level, produced much more forage under severe drouth conditions than the low-fertility, low legume fields.

*Agronomy Department, Cornell University.

Management Tips

Assuming that we receive a reasonable amount of rain in late August and early September, many hayfields that were essentially dormant during midsummer will produce rather good growth in September. Because of the feed shortage, most farmers will want to harvest the growth for use this winter.

Under normal conditions, the usual recommendation is not to graze or cut forage legume meadows during the period beginning approximately four to six weeks before the average date of the first killing frost for the area. For maximum protection of the forage stand, cutting or grazing should be deferred until growth is stopped by cold weather, often two or three weeks after the first killing frost.

When the plant is defoliated at a time which allows for considerable regrowth, then much of the reserve stores of carbohydrates are used. Thus, if the growth period is not at least five or six weeks long, the plant does not have time enough to replenish its store of food. On the other hand, if the cutting time is such that the plant has only a short growth period, or has a growth period nearly long enough to restore normal food reserves, the damage is likely to be slight.

If the plants were in an excellent state of carbohydrate reserves, the "draw down" of food reserves by regrowth may still leave a relatively good supply. In this case, cutting or grazing would probably not be damaging. On the other hand, where frequent cutting or grazing had reduced the amount of reserve carbohydrates in the roots of the legumes, cutting and subsequent regrowth without adequate time for rebuilding the supply can lead to severe winterkilling.

What does this mean in practical terms for the drouth year? Observations and the results of research indicate that when the growth of plants has been held back due to drouth the carbohydrate level may be relatively high. Under these conditions plants have not been as severely damaged by an untimely cutting as have similar plants that have produced heavily during the growing season. An example of this is shown in the results of 1959 alfalfa management research in eastern New York State. At two locations in the southern Hudson Valley, rainfall was above normal and very high yields were obtained in 1959. At two other locations on the same soil types in the northern Hudson Valley yields were much below normal because of drouth—in fact, only two cuttings were taken where three had been planned. When an extra fall cutting at approximately weather bureau frost date was taken at these four locations, the results showed that in the southern valley where the rainfall was favorable and yields high in 1959 there was a loss of

(Continued on Page 22)

WEEVIL CONTROL

The alfalfa weevil, with its destructiveness to legume hay crops, appears to be moving northward across the Northeast. At present, it does its chompin' in Pennsylvania, New Jersey, Maryland, New York's lower Hudson Valley, and southern New England. If you're not already acquainted with this critter, the odds are you will be before very many years roll by.

Late September or early October, after the last cutting in the fall, is a good time to clean them up. They usually "hole up" and become dormant after about October 15, so they have to be clobbered while they're still living it up along Alfalfa Lane.

Use heptachlor or dieldrin in either the granulated or emulsified concentrate form; usually equipment already available on dairy farms will apply a spray, but granular materials require special equipment. Apply either insecticide at the rate of one pound of actual toxicant per acre. As an example, one formulation of heptachlor contains two pounds of "actual" per gallon; use one gallon of formulation per acre.

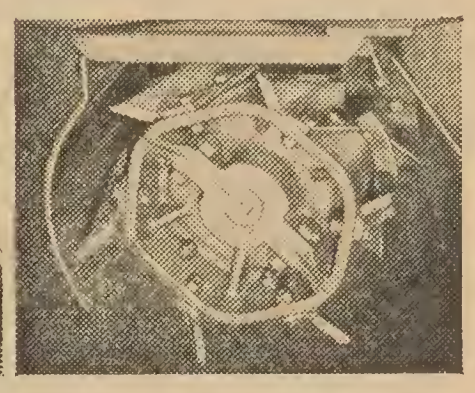
Dieldrin or heptachlor will be available in most areas this fall incorporated in fertilizers commonly used for topdressing meadows, so you can kill two birds with one stone. Better check, though, with your source of supply and get your order in ahead of the day you want to have it delivered.

Although the alfalfa weevil is the really bad actor, fall applications to combat him may also have beneficial side effects by helping to control spittlebugs the following year. Don't graze treated aftermath this fall because of possible insecticide residue showing up in animal products.

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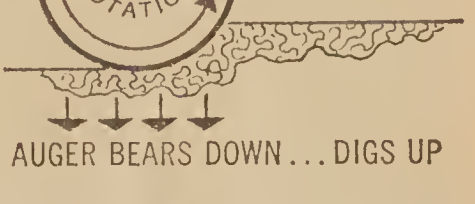
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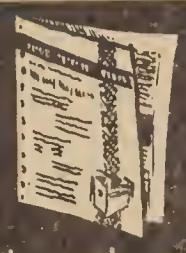
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Built A Better Barn

(Continued from Page 2)

7" deep on the drive alley side.

Lights are in 5 rows, with twelve 100 watt bulbs in four rows and four "night lights" in the other row, the latter controlled by a switch governed by a light meter. "Cows eat later with lights on and the inseminator occasionally arrives pretty late, so I like that row of automatic lights," Roger says.

Ventilation is provided by air inlets running the full length of the barn along the eaves on both sides. The eave overhang is screened against flies and the 1½" opening between the top of the concrete block wall and the ceiling can be closed with a movable strip.

Two 36" exhaust fans are each controlled by two thermostats, one operating shutters that determine whether air is drawn from floor or ceiling; the second shuts the fan off if barn temperature drops too low. In spite of large capacity, these fans turn at only 408 rpm and are therefore quiet.

Cow trainers are built of light chain and chunks of strap iron at a material cost of 30 cents each. They can be turned off in "blocks" of stalls so the man milking won't get an ear burned if he happens to get too close.

"I didn't like the idea of trainers, but cows were just too dirty without them unless a man spent a lot of time cleaning them up," Roger says. "They save a lot of bedding and we're now able to bed the cows every other day instead of it being a daily chore."

Other features include 6" steel pipe filled with concrete to protect the door openings. These pipes are anchored in the footing; they are set just outside the walls and 2" toward the center of the doorway so a careless equipment handler will bang them instead of the doorway. Believe me, these are rugged guardposts!

There are no "official" maternity pens; the freshening cow remains in her comfort stall where a temporary pen is made with discarded U-shaped aluminum truck panels. A wooden saddle bridges the gutter.

Cost is always the big question, in this case a $49,337 question. The contractor did all the work except the grading, painting exterior wood (eaves, etc), and some welding done by the Beckers on cow trainers and stalls.

Here's a breakdown:

Barn (includes feed room and silo foundation)	**$35,512**
Ventilation	**888**
Stalls	**2,057**
Wiring	**1,485**
Gutter cleaner	**3,645**
Plans	**150**
Silo & unloader	**5,600**
Total	**$49,337**

On the basis of the present 120 stalls, this is $411.10 per cow. Another 20' x 50' concrete stave silo (with unloader) has just been built, adding $5,200 to the total cost.

Operating this barn has been a joy to the Beckers; the herd, with more comfort and better ventilation, jumped in production when they were moved from the old barn. In fact, milk production in the first 10 months of the 1962 DHIC test period is already 1,500 pounds above the 1961 annual figure. "Furthermore," Roger says, "cows haven't lost flesh —they're producing better and holding weight besides."

Cows now don't leave the barn at all except when individual animals are let out to detect a heat period indicated to be due by the herd record book. Most of the hay is stored in the old barn, brought over in large quantities by truck, and distributed to the cows on 4-wheel dollies.

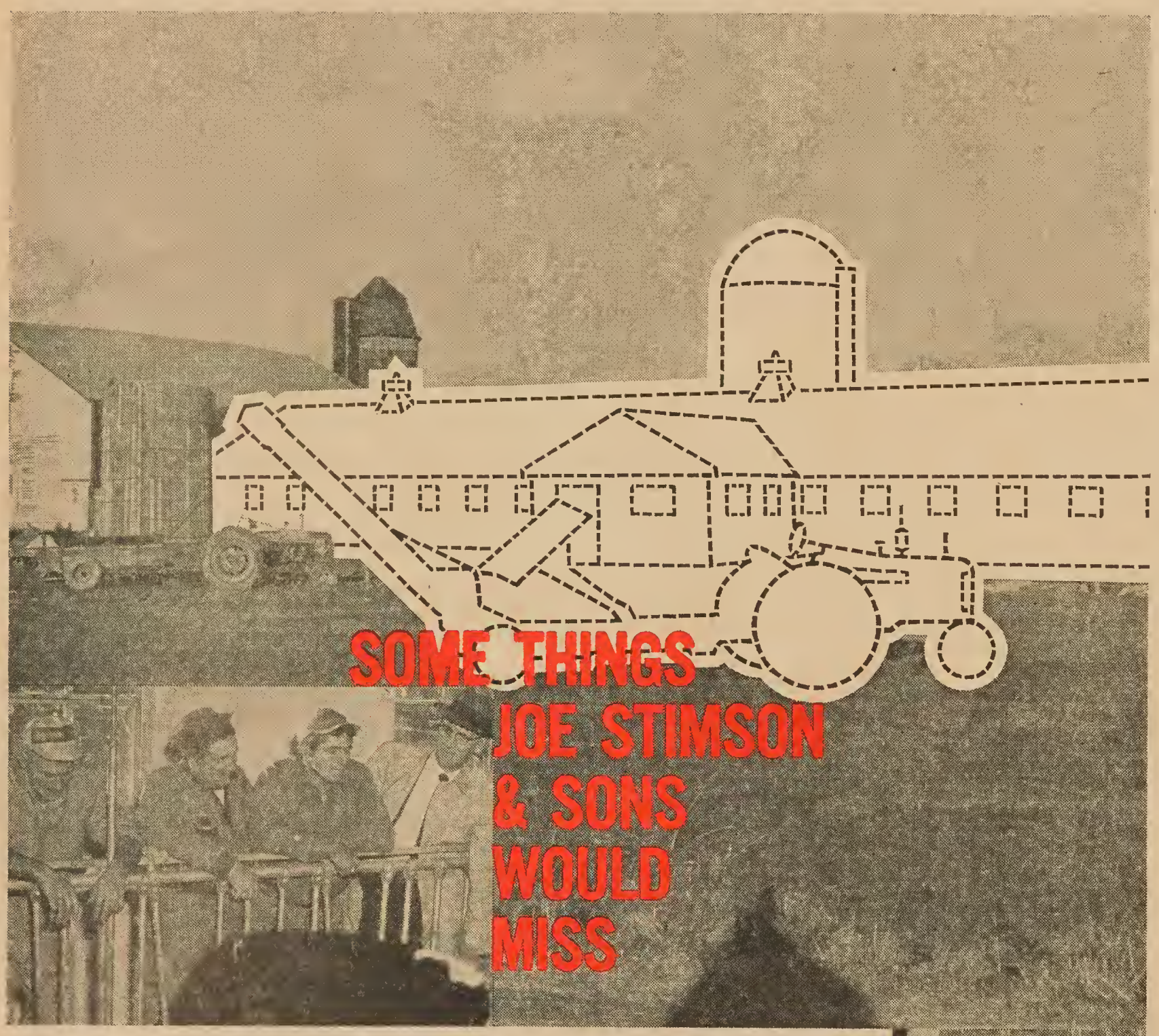
There are always some things that anyone would do differently, and this barn is no exception. For one thing; Roger recommends brooming the drive alley concrete at construction time two ways instead of one for better hoof traction. He'd also make a whole row of cow beds shorter rather than half of all rows as now built.

Looking ahead, Roger is experimenting with a self-propelled silage cart that will automate that job. He checked on using a self-unloading wagon pulled by a tractor between rows of cows, but rejected it after he saw tires carry a lot of mud and small stones into the mangers.

He's not sure whether he will build a milking parlor, but there is a 33' x 64' open space on one end of the barn that could be used for one—or for 24 more stanchions.

MAKING PLANS?

If you're planning on using a milking parlor with a stall barn, you'll want to read Cornell Extension Bulletin 1085, entitled "Basic Arrangements of Milking Parlors with Stall Barns." New York State residents may obtain a free copy from their county agent; residents of other states should send their order (including 10 cents) to: Mailing Room, East Roberts Hall, Cornell University, Ithaca, New York.



Joe Stimson and his sons get a lot out of their two Falmouth, Maine, farms — and out of life. They're *business* farmers and they use farm credit as a *business tool,* to streamline and expand operations for the rough competition of today's markets.

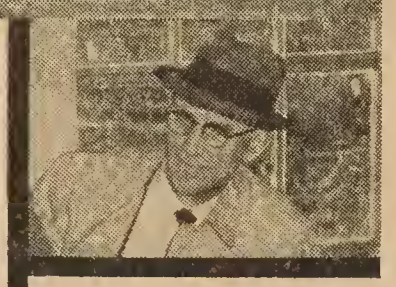
For instance, the 275-acre Dairy Farm with its 52-milker Holstein Herd averages 14,000 lbs. milk/542 lbs. butter fat. Recently, a 62-stall, 4-pen barn extension, concrete stave silo and haying equipment were financed largely through Co-Op Farm Credit.

Land Bank and PCA loans also helped in the purchase of an adjoining farm and in buying equipment for an extensive poultry operation. Joe Junior runs this farm, raising broilers on contract in lots of 17,500.

"Financing on a business basis has replaced yesterday's horse-and-buggy, hit-or-miss borrowing," say the Stimsons. "And the men who really know farm credit are at the local Co-Op Office."

How about your future plans? If they call for expansion or modernization, call your local Co-Op Farm Credit man. His wide experience in loaning to farmers is valuable.

For complete, friendly credit service, see your local association, or write: Dept. A-143, 310 State Street, Springfield, Massachusetts.

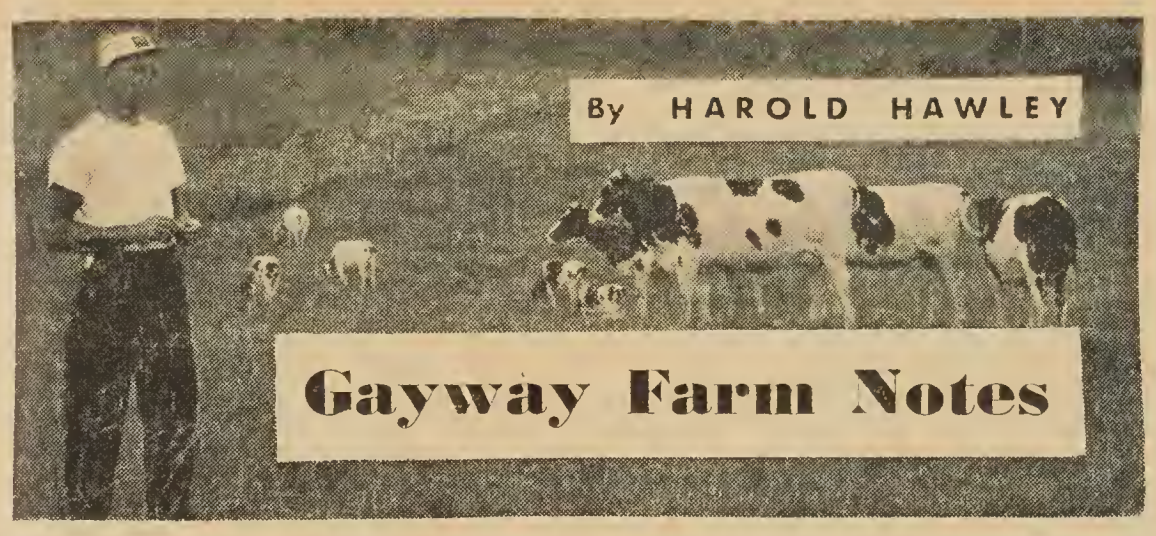


The Stimson's local Co-Op Farm Credit man is Donald H. Ridley, Manager of the Federal Land Bank Association of Gorham and Assistant Manager of Farmers PCA of Southern Maine. The credit know-how and farm experience of men like him is available for help with your long-range projects or short-term needs. Call your local office today.

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SUPPLEMENTAL FEEDING

AS A RESULT of dry weather and poorer pastures, it seems as if there is more hay and silage being fed to cows this summer than ever before. Of course, racks in the lane, pasture, or barn lot for greenchop or hay are nothing new—nor is the practice of feeding cows all they will eat in the barn at milking time. What is different is the almost universal presence of a source of feed for the cows at all times.

This good practice has received a big boost from the drouth. The good results coming from it will almost surely lead to its continuance even in years of better pastures.

It has been interesting to notice the variation in the amount our "gals" will eat. Our practice has always been to fill them up with hay or silage and grain in the barn and let them "pick away" at a rack of hay in the lane.

In other years a rack would last three or four days; this year they have sometimes eaten a rack a day, and even when they were turnd into new fields of second cutting alfalfa, consumption of hay has been fairly high. We have fed grain at the regular winter rates, and production has been the highest for any summer yet.

What it seems to boil down to is that in other summers, when we thought we were doing a pretty good job of feeding, we just weren't getting as much down old Boss as we should. As someone has said, "All these years we've been under-estimating what the cows could do." Possibly cutting back a little on grain in the summer saved a little cash, but I'm convinced it was pretty expensive economy.

NOTHING NEW

A couple of years ago we used a corn-topping machine which cut off the top of the corn plants between the ear and the tassel. This was done along about the middle of August. Big claims had been made for this in the Corn Belt, so when a machine was available to try we used it on part of a field.

The idea was to speed to maturity and make picking easier. It did the latter; I'm not sure about the former. We observed no change in yields —no weighing, you understand, just the "eyeball" test. We were interested in it (not sold), but the machine was not available the next year, so we forgot about it.

The other night we were thumbing through an 1834 copy of the "Cultivator". This was a monthly publication devoted to agriculture and published by the New York State Agricultural Society. In it were reported many views and findings in the agriculture of the day.

A Mr. William Clark, Jr. told of his experience where he noted an 11 bushel loss of yield by topping the stalks. If I understand it right, it was common practice to cut and gather the top portion of the plant while yet green to be fed, then later to harvest the grain and stalk; anyway, Mr. Clark advocated otherwise. So I guess this "new" practice of corn-topping is not so new after all.

Our attic recently yielded up a copy of the "United States Chronicle" dated Thursday, July 17, 1794. It was published by Bennett Wheeler at Providence. Well, sir, things haven't changed much. Congress had passed and George Washington had signed an act giving a pension (retroactive, at that) for a John Roble, a Revolutionary War soldier. Also, our government even then was in debt and borrowing more money. And Congress was concerning itself with imports and exports (tea, sugar, coffee, cocoa, molasses).

The ads on the back page are as interesting as can be: horsemen's pistols and cutlass blades, bar lead and shot, pork per bbl., tar, pitch and turpentine, white oak barrel-staves and heading, North Carolina corn, New England rum, sole leather, strained spermaceti oil, codfish, Baltimore super fine and fine flour, etc., etc. There were no brand names, but frequent references to the city, state or county of origin.

I guess we'd be a bit startled to buy in such quantities, too—by the case, hogsheads and tierces, barrels, bolts of cloth and many items by the hundred!

STEEL FLOORS FOR WAGONS

A year ago, we bought a new running gear and had a steel deck put on it with pockets for standards and boxes. We weren't too happy with it last summer because it was so slippery.

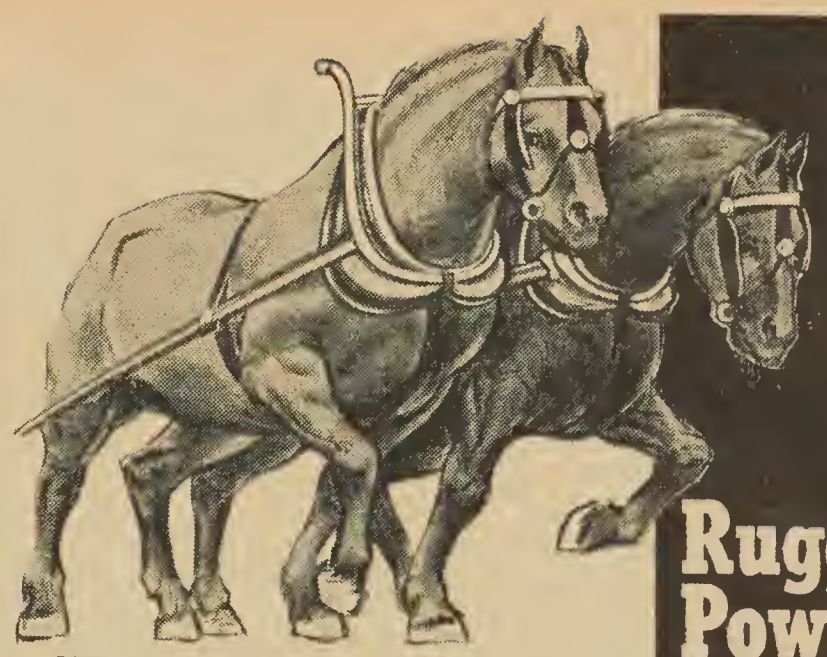
This year we had another one made, however, since we didn't have suitable lumber sawed out for a good wood rack. With the bale thrower, it is no longer a problem to try to stand up and work on the slippery floor on a side hill, and we are pretty pleased with the outfits.

Twenty-ply airplane tires and a heavy-duty running gear—plus a steel reach—and one is about ready for anything in any reasonable quantity. The rigidity of the pockets is also quite gratifying when loading up so heavy with hay and silage.

GRAIN WAGONS

For the first time we have used grain wagons with sloping floors rather than trucks, for hauling grain when combining. Our truck has a hoist, but we have had to shovel grain from whatever truck we have been able to rent in other years.

The truck with the hoist can't be unloaded into a hopper because the elevated truck box hits the hopper. To use one truck and one wagon would be a nuisance, so we have been using two wagons. Usually we send in a load of grain and a load of baled straw together and it works out well.



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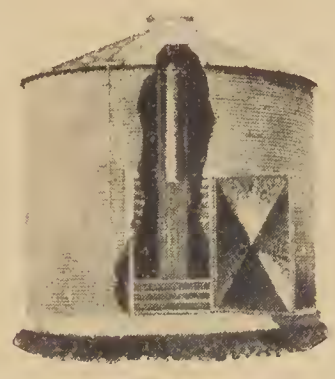
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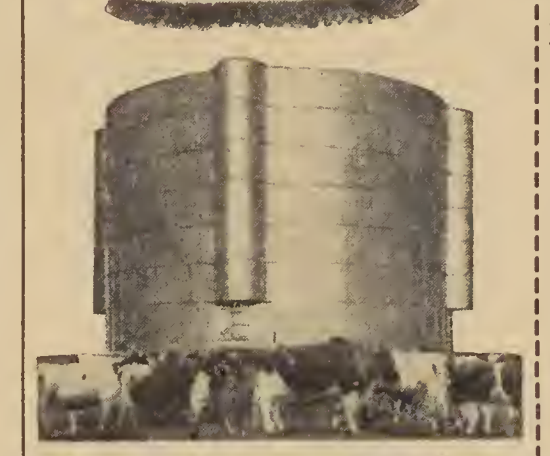
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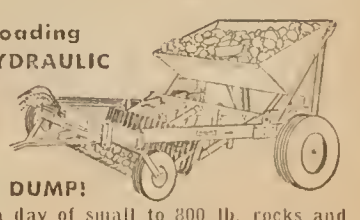
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Dr. Chance says, "PFP consists of the ten most important dairy herd management practices. These practices will *lower* your costs of production, and *increase* your income-over-feed-cost. And PFP," he adds, "is not a theory or experiment. It has been tried on thousands of production dairy herds. It works."

THE PROOF Over 5000 dairymen have enrolled in PFP over the past two years. Of those herds with complete and accurate records (DHIA), 84% show gains in income. Over 50% have had increases of from $27 to $62 per cow per year.

HOW DO YOU ENROLL Your GLF Dairy Representative will explain the Plan to you...help you set up a record keeping system...and be on call as you need his advice. Your obligation? Keep the records and feed the right TDN levels of roughage and grain.

WILL YOU HELP WITH A TEST? GLF is now testing "appetite" feeding. The reason? Research has indicated that the modern Holstein has the inbred ability to produce 15,000 lbs. of milk per year, or higher...if she is challenged early in lactation to eat to appetite.

Your Representative will ask you to put 2-5 of your just-fresh cows on this appetite feeding program...to help us show that this new idea will make money for farmers.

Challenge your cows. See what they can really do. Put them on the finest dairy herd management program around today—GLF's Profit Feeding Plan.

Cooperative GLF Exchange, Inc.

Dairyman Richard Brooks of Cortland, New York (right in photo with Dr. Chance) increased his income-over-feed-cost by $2200 in the three years he has been on PFP. He feeds GLF #1600-16 Pellets and all the good roughage his cows will eat 365 days a year.

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For fresh reports on current conditions across New York, plus the official weather forecast, tune to any of these stations. Regular broadcast times are 6:25 and 7:15 A. M.; 12:15 and 6:15 P. M.

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Hornell	WWHG-FM	105.3 mc.
Ithaca	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
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AM STATIONS

Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Remsen-Utica	WREM	1480 kc.
Canandaigua	WCGR	1550 kc.	Salamanca	WGGO	1590 kc.
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Elmira	WENY	1230 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Scranton, Pa.	WEJL	630 kc.
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NEWS and VIEWS from New York and Pennsylvania



PICTURED above is Cayuga County Dairy Queen Suzanne Forshee, surrounded by her attendants and officials. The contest was sponsored by the Women's Committee of the Farm Bureau, and our Home Editor, Augusta Chapman, was one of the judges. Left to right: Michael Peduto, manager of the Auburn Chamber of Commerce; Charlene Ford, attendant; Wilbur Smith, president of Cayuga County Farm Bureau; Mrs. Robert Wiggins, chairman of the Women's Committee; Phyllis White, 1961 Dairy Queen; Harold Kent, president of Auburn Milk Council; and Margaret Hanlon, attendant.

Appointed — Professor George G. Gyrisco, teacher and research scientist (and a frequent contributor to AMERICAN AGRICULTURIST) has just been appointed as the new head of the Department of Entomology and Limnology at Cornell University. He succeeds Professor Herbert H. Schwardt, who died May 14. Professor Gyrisco has been at Cornell for 19 years, and is noted particularly for his extensive research on the biology and control of forage crop insects.

Museum — From August 27 through September 3 the Pennsylvania Folklife Society's Folklore Museum (Amish Dutchland) and the 2nd Annual Harvest Frolic will be held on the Amish Dutchland grounds.

Program — The New York State Civil Defense Commission has recently originated a farm protection program in the event of nuclear war. A pamphlet is being distributed at agricultural fairs—or write directly to the New York State Civil Defense Commission, Counseling Service, 162 Washington Avenue, Albany 10, New York.

Outstanding — Among the four young farmers named by the FFA to receive the Star Farmer awards for 1962 is Russell L. DeMond of Groton, N. Y. Each winner receives a cash award of $500 at the National Future Farmer convention in Kansas City on October 11, and at that time one of the four will be named Star Farmer of America, with an additional $500 award.

Judging Tour — The 35th annual Delhi Judging tour was won by students representing Livonia Central School; second team was that of Gouverneur High School. The farms visited were: Hansenarea Farm, South Valley, owned by Lawrence Hansen and Son; River Valley Farm, Milford, owned by Mrs. Gertrude Low and son Stephen; Iroquois Farm, Cooperstown, owned by F. Ambrose Clark; Morningside Farm, Delhi, owned by Mr. and Mrs. Hugh McDowell; and New York State Agricultural and Technical Institute Farm, Delhi.

Pooling — The Empire Livestock Marketing Cooperative and the Producers Co-operative Commission Association have approved a proposal to strengthen livestock marketing in western New York. They will pool all of their facilities, finances and personnel. All livestock marketing facilities operated by the two cooperative groups will be continued —the Producers' commission business in the Niagara Frontier Stockyards, and the Empire auction market facilities on Walden Avenue in the town of Lancaster.

Winner —Among the award winners of the American Institute of Cooperation $50 scholarships for excellence in cooperative farm business activities is Lyn Huntley, North Chatham, Columbia County. Winners received their awards at Columbus, Ohio, on August 6.

Queen — Miss Fran McMann, Mineola, was selected 1962-63 Long Island Poultry Queen. She was sponsored by the G.L.F. Egg station, Huntington Station, and won in a class of 22 competitors.

Fair — September 6-9 are the dates of the annual Yorktown Grange Fair at Yorktown Heights, N. Y.

Award — Howard J. Simons, son of former Director of Extension L. R. Simons, and staff member of the USDA, recently was presented with the Department's Superior Service Award. His father won the same award in 1951.

Elections — Gerald Verbridge, Williamson, was unanimously re-elected president of Western New York Apple Growers Association for a third term. George LaMont, Albion, was re-elected vice president; Neil Elliott, Hamlin, elected assistant treasurer.

Raymond Smith, Geneva, was elected president of the New York Cherry Growers Association; Calvin "Pete" Nesbitt, Albion, vice president; Willis Phillips, Jr., Burt, treasurer.

The Art of Good Milking

(Continued from Page 1)

Then comes the time when we put the machine on her for the first time. I like to have grain in front of her because it helps to get and hold her attention. The udder should be thoroughly washed with hot water and then vigorously massaged to stimulate quick milk letdown.

When the time comes to put the machine on it is desirable whenever possible to have a second man present. He can do little things to attract and hold her attention.

If she shows evidence of becoming excited and attempts to kick the machine off, he can grasp the tail close to the base and firmly push it upward which usually discourages any further attempt to kick.

When we are successful in getting through the first few milkings without incident, we usually have the battle won. If we fail to carry out some of these simple precautionary measures and the heifer becomes excited and kicks the machine off, we may have a long struggle ahead of us; we may even find ourselves in a battle that we have little chance of winning.

Cows Different

The first prerequisite of a good machine operator is that he recognizes **that each cow represents an individual.** And being an individual, there are differences that must be reckoned with. Responses are different; the biggest problem is differences in milking time. One cow will milk out in three minutes or less while the next one may require five to six minutes, or even more.

Whenever an operator is attempting to operate more than one unit (two units should be the absolute maximum in my judgment) it is highly important to line the cows up according to their milking time. When slow milkers are intermingled with the fast milkers one of two things is certain to happen: either the operator's work gets spread over such a distance that he cannot give his cows the individual attention they should have, or the machine stays on the fast milkers too long.

We have heard a lot of discussion about timed milking. In my opinion timed milking is neither possible nor practical. If a cow will milk out in 2½ minutes, that is when the machine should be taken off. For the cow that requires 5 to 6 minutes to milk, it would be nothing short of foolish to pull the machine in 3 minutes and leave half the milk to be taken by hand; it would be simpler and easier to put her on hand milking.

When an operation is large enough to require more than one milker, each person milking should be assigned the same group of cows each day. This is the only way that the milker and the cow can really get acquainted.

There is one exception to this general rule: sometimes the personalities of the milker and the cow clash. When they do, it is good management to transfer the cow to another milker.

We had a classical example of this a few years ago at Harden Farms. The National Grand Champion and All American, Locvale Master Marcy, made 25,000 pounds of milk at 4 years. She was in beautiful condition at next calving so we transferred her to our best milker's string, expecting great things. From the very first day they just couldn't get along. The result was that she finished her 5-year-old record with just over 20,000 pounds of milk.

No one laughs at a 20,000 pound record, but in this case we were disappointed because we already had proof that she was capable of more. As further proof of her true ability, the very next year (in another milker's string) she produced over 30,000 pounds of milk.

In another article I discussed the importance of daily milk weights as a guide to intelligent feeding. They are of even greater value as an aid to good milking, providing us with a storehouse of valuable information. Sudden unexplained variations in daily production foretell pending trouble, and provide management with time to take steps to correct it before it becomes serious.

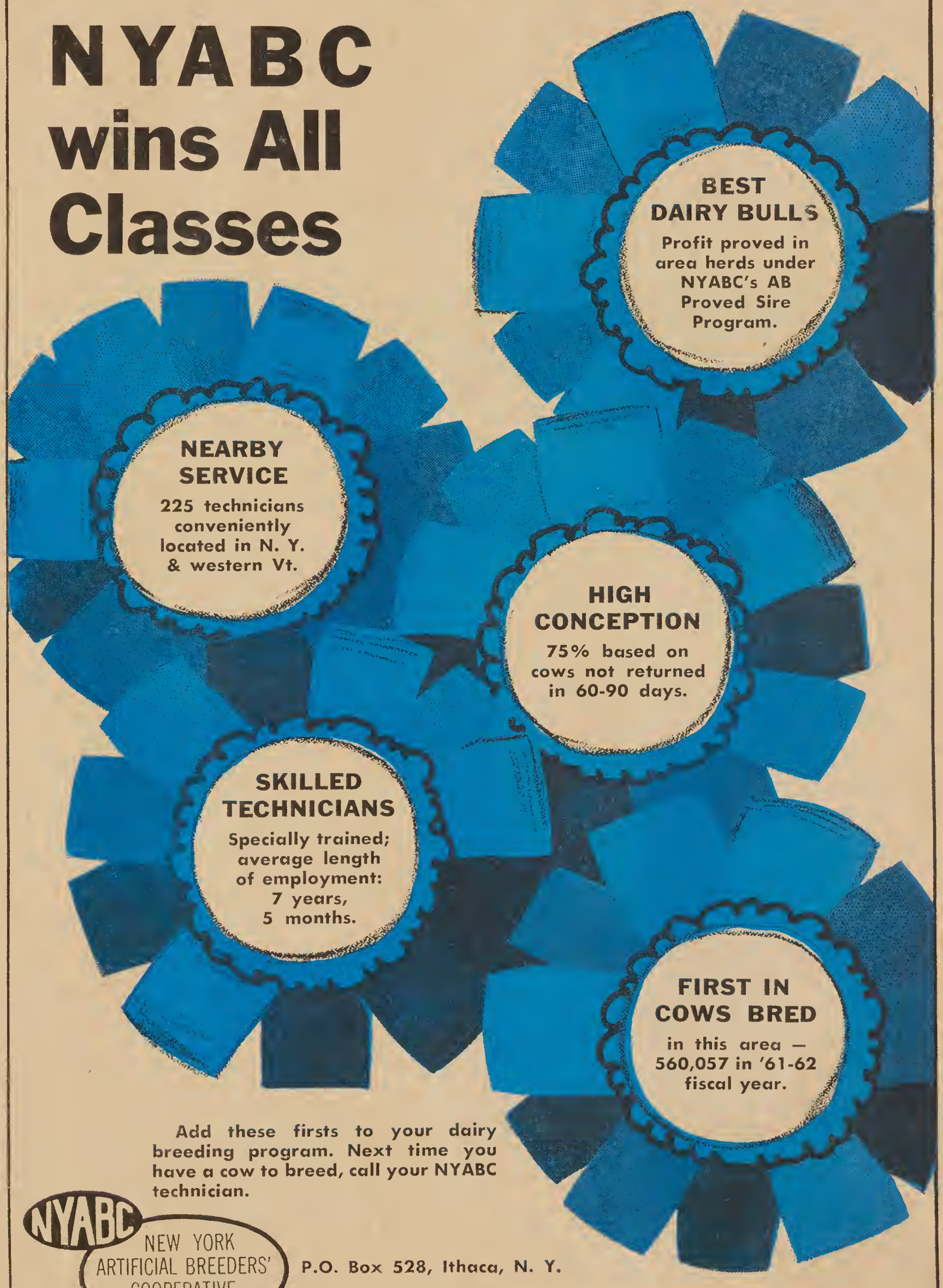
Remember, the quality of the milking job being done is not measured during the first third of the lactation but during the last two-thirds. In her effort to perpetuate the species, nature has already endowed the cow with a powerful stimulus to produce following the birth of her calf.

This stimulus is still working for us, and it is so powerful that during the early part of the lactation the dairy cow will continue to produce even at the expense of her own body. Nature, however, has a wondrous way of maintaining a balance between perpetuation of the species and self-preservation, therefore she provided the cow with an inhibitory factor.

When the calf is old enough to take care of its own needs this factor steps in and says, "You have done your duty, so stop and begin to prepare yourself for the birth of your next born." This is a factor working **against** us. In conflict with this inhibitory factor we are, by selection, striving to develop a cow capable of maintaining a high level of production throughout the entire lactation period. After 3 or 4 months in lactation it becomes a constant battle for command between this inhibitory factor and management. So we can-

(Continued on Page 21)

NYABC wins All Classes



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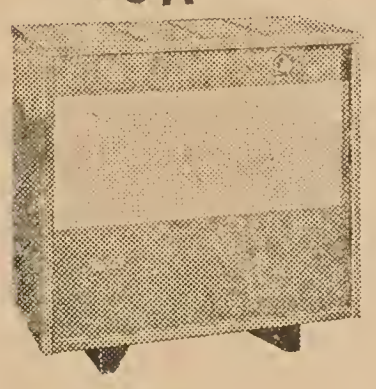
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New Way Without Surgery
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New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

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130 Brown Swiss — Woodbourne, N. Y.
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Every cow and bred heifer at Concord Farms will be sold, including:
30 Daus. of The Dean of Lee's Hill Ex
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FOR CATALOG WRITE:
DALE HOMER, Box 25, HILLIARD, OHIO



Albert Reamer heads for the field with waferer.

Hay Comes Bite-Size

By HUGH COSLINE

AT THE FARM of Steve Reamer & Sons on Route 5, between Stafford and LeRoy, in Genesee County, I had my first look at a hay wafering machine on a New York State farm. The two sons are Victor and Albert. Vic was away when I was there, so Albert very kindly answered my many questions.

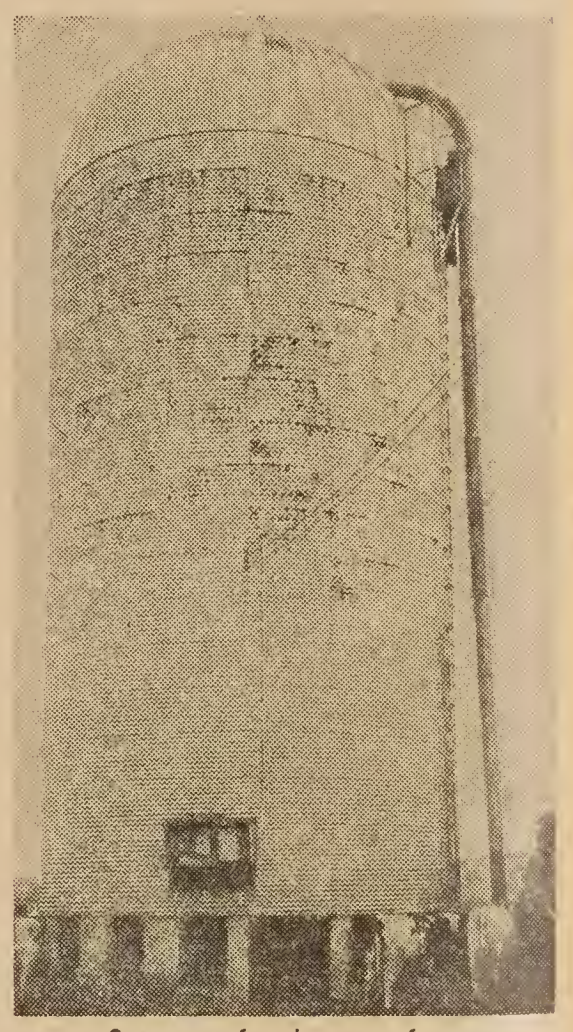
Roughly, the system works this way: A flail chopper cuts, chops and windrows the hay all in one operation. The morning after it is cut, the windrows are turned and allowed to dry for about an hour. Then the wafering machine picks up the hay, re-chops it, and wafers it at the rate of 6 to 6½ tons an hour. A water tank is part of the machine, and the operator adds water if needed to give the wafer the right consisteney.

The wafers are delivered into a truck, and from that blown into a "haymaker" which looks like a silo but actually has many small openings in the side. In previous years this was used to store chopped hay and it had an air chute up the center and a power-driven fan to dry out the chopped hay, which was cut on the green side.

This "haymaker" is rated as holding 100 tons. There is some question as to how much hay it will hold in wafers, but Albert told me that a bushel of wafers is about equivalent to a bale of hay.

"One thing we have noticed," said Albert, "is that the cows seem to be crazy to get at this wafered hay. They will actually leave greenchop." This statement was easy to believe, because while this wafered hay was being blown into the "haymaker" the cows were all around trying to steal a bite or two.

Incidentally, this hay storage is self-feeding, as you can see from the picture. At one side of the barnyard is a bunk silo which has been made into a self-feeder by the use of a fence. The herd, numbering 50 milkers, is handled in a pen stable setup.



Storage for hay wafers.

I asked Albert what persuaded him to buy the wafering equipment. "There were several factors," he replied. "One was storage; the second was the saving of labor; and then there were other smaller considerations such as the saving on baling wire and twine."

CHOPPER CHANGES

WITH FARMERS interested in growing corn for forage at high acre populations, experts at the Agricultural Experiment Station at Pennsylvania State University believe modified harvesters are needed. Conventional machines are designed to harvest corn silage planted usually at 20,000 plants per acre, as against the 50,000 to 100,000 plants per acre used with "solid planting."

Experiments in 1961 at Penn State found harvesting machines clogging repeatedly, and the machines gathered only half to three-fourths of the crop. Sickle bar machines performed better than flail type, mainly because operators could provide some help in feeding and unclogging the machines. It was noted, however, that 1961 was a particularly good growing year, and that with shorter corn the machines might perform better.

Good Milking

(Continued from Page 19)

not afford to relax; if we do we quickly lose control.

We have now arrived at the point where we must milk the cow. Do you know of any better approach than that of her own calf? It places its warm lips on the teats, and then with a few positive bunts it tells the mother that it is time to give.

Washing the udder with hot water comes the nearest to duplicating the warm mouth of the calf of anything known. I would like to emphasize the word "hot." Washing the udder serves two purposes. It is an aid to the production of clean milk. Secondly, there is a hormone in the cow's system that controls milk letdown. Washing the udder with hot water is the best known means of causing this hormone to be released.

The paper towel is of little value in washing the udder because it cannot hold enough water to stimulate the udder enough to cause the hormone release. We like a wide flat sponge because it holds a lot of water, and is large enough to cover a large section of the udder at one time. After sponging the udder, the paper towel is very useful. It removes the droplets of dirty water that might otherwise get into the milk. If used vigorously it can be a reasonable substitution for the bunts the calf delivers.

Hormone Action

Some operators don't seem to understand the importance of this letdown hormone, or the necessity for exact timing. I have seen operators wash the udders of as many as 6 cows in succession. When the cow's udder is washed this far in advance of milking, the benefit of the milk letdown hormone is lost. It requires about 2 minutes from the time of udder stimulation for this hormone to reach full effectiveness, and it begins to fade in about 6 minutes. The operator, therefore, should be ready to put the machine on at about the 2-minute mark after stimulation, and it should be removed just as soon as the cow is milked out.

A little hand massage of the udder reduces the need for hand stripping. The good hand milker has long recognized that frequently cows have small pockets at the base of the teat where milk collects and will not be emptied by the normal milking action on the teat. By placing one hand on the floor of the udder and pushing upward, these pockets are readily dumped. For complete milk-out the good machine operator follows the same procedure.

Many machine operators seem to operate on the theory that the more units they use the quicker they will complete the milking job. This is a false theory. Leaving the machine on after the cow is milked will soon produce a slow milker. Therefore, whenever a milker uses more units than he can keep up with he will increase rather than decrease milking time. It can also cause serious teat damage, which in turn greatly increases the danger of mastitis.

After the first few months, leaving the machine on too long is almost certain to cause a rapid decline in milk production. Frequently cows so milked will be dry weeks before they should be. I am sure that this problem could be practically eliminated if we could just get the milker to evaluate his milking job in terms of the **number of pounds of milk he milked in one hour rather than in terms of the number of cows he milked.** Few dairymen seem to realize what a tremendous influence milking procedure can have upon yearly production.

When the machine is removed, check the udder for milk that might remain. If there is any readily available milk it should be taken. When the check fails to yield any easily obtainable milk, don't sit there and strip. Remember that prolonged stripping can actually convert easy and complete milking cows into strippers.

There are a number of other good management practices that have been proved helpful in preventing the spread of udder infection. The use of the strip cup or strip plate provides a means of early detection of any udder infection.

Dipping the teat cups in a solution between cows reduces the chances of spreading infection from one cow to another. Sponging the end of the teats after milking is helpful in destroying any infectious organisms deposited on the teat before they have a chance to gain entrance into the quarter. As valuable as these practices are, they are only secondary to the importance of good milking.

It is, of course, only common sense that cows known to have infected quarters be stabled so that they are milked last. Moving the machine from a diseased udder directly to a healthy udder is the surest known method of spreading the infection.

I am satisfied that a large percentage of the mastitis trouble in many herds starts during the drying off process. How often one hears a dairyman make the statement that this cow never had any trouble in the udder, but when she calved this time she had an acute infection in one or more quarters.

I'll wrap up the importance of good milking procedure by simply saying that the poor milker doesn't need good cows. It would be better that he ruin the poor cows and leave the good ones for the milker who has interest enough to do the job right.

from Wallkill, New York . . .



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ART MAIER

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December Issue.....Closes Nov. 5
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Coming Meetings

September 7 — 13th Annual Western New York Fat Stock Show and Sale, Caledonia, N. Y.

September 9 — Dedication of the Justin Morrill Homestead, Stafford, Vermont.

September 10—Western New York Guernsey Breeders Association Sale, Little Valley Fair Grounds, Little Valley, N. Y.

September 10-11 — Cornell Vegetable Variety Field Days, Ithaca and Geneva, N. Y.

September 11-12 — New Poultry Products Conference, Statler Hall, Ithaca, New York.

Sept. 15-23—Eastern States Exposition, West Springfield, Mass.

September 15-23 — New Jersey State Fair, Trenton.

September 16 — Fall Flower and Garden Show, University of Rhode Island, Kingston.

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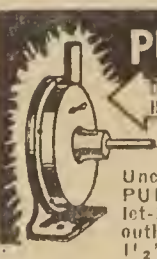
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Saturday, September 8, 1962
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Catalogs: Alfred Partridge, Windham, N. Y.

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USE LEAVES for Your Decorative Design

By DOROTHY WELTY THOMAS

DECORATIVE designs derived from leaf forms may be applied by many methods to scarves, luncheon sets, dresses, skirts, curtains, and almost any flat, firm fabric. You can also use leaf designs to enhance paper products such as program covers, paper napkins, place mats, etc. There are almost as many ways to use them as there are leaves. Here is a real possibility for the person who likes to do craft work but lacks drawing skill.

Making Your Design

The selection of leaves in type and size, as well as their exact arrangement, all contribute to the success of your work. Use too little, rather than too much, decoration. Try more than one arrangement before deciding on one. Try rows,—pairs, double rows, panels, overlapping and crossed stems. Informal grouping may be best of all.

Suit the size of the leaf to the size of the piece of work and the technique you use. The crayon technique, for instance, depends a great deal on the silhouette or outline of the leaf and the veins for its beauty.

Crayon Rubbings

One of the simplest techniques is to arrange the leaves **face down** on a surface the size and shape of the article you wish to decorate (a pad of old newspapers cut to shape will do fine). Then carefully place your material over the leaves. Use the broad side of big kindergarten-size crayons from which the paper wrapping has been removed. There are also square crayons that come without wrapping and are made purposely for broad crayon work. Go over the covered leaves with a deliberate, pushing motion. Bear down hard but don't use a sudden, jerky motion lest you tear your fabric or paper.

The material should be fine, sheer and relatively firm. Organdy and sheer nylon are excellent. Press the results between newspapers or blotters with a warm iron (not hot) to set the color. The pressing will blur your impressions slightly but it will still be beautiful.

For this rubbing technique, choose leaves with prominent veins. Snip off the little bulge in the stem where it grew on the branch. Leave the stem on unless it definitely interferes with your plan for design. Ferns, maple, oak, grape, elm and beech are all suitable for this technique.

Dry Brush

This technique is suitable for any firm material, heavy or light. It can be used on paper, felt, linen, cotton, etc. Use any good textile color for fabrics. (Prang Textile Colors and Flopaque are suitable and there are others). Follow directions on the bottle, but in any case use the color sparingly. Oil tube colors thinned with turpentine may be used but are more apt to leave a grease ring. Experiment on small pieces of fabric first and make sure it is going to work.

Tempera (poster paint) may be used on paper. It makes an excellent medium for decorating program covers and end-papers for books and linings for envelopes.

Place the leaf in the desired position on the fabric or paper and using a stiff brush **nearly dry** (wipe it off on a piece of towel paper), brush outward in short, radiating strokes. Go all around the edges, making sure you do not skip any corners. Make one or two strokes parallel and straddling the stem. Then remove the leaf.

A nice effect is obtained by overlapping leaves. Analagous colors, such as yellow, green and orange, are best but you can use any color scheme you desire. Metallic paint may be used, but it is difficult to keep in solution and necessitates stirring before each brush load and then removing the excess from the brush.

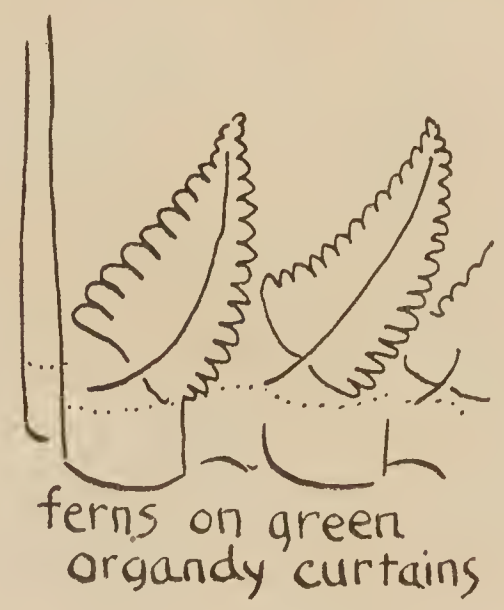
The arrangement is the important thing. You can repeat in formal pattern or scatter the leaves helter skelter. Since leaves never come two alike, the latter seems preferable in some situations. Sometimes you can



use a whole spray, just as it grows on the branch. (See illustration of skirt). I made a luncheon set on linen and used a mixture of maple and oak leaves, varying the arrangement for each piece.

Embroidery

Leaves can be the motif in many kinds of stitchery. Here is one technique you might like to try: Select



a compound leaf with a lot of interest, such as a locust, hickory or ailanthus leaf. Draw around it carefully with a pencil. Then fill in the space around it with carefully spaced rows and rows of running stitches (seek sketch at right).

Another idea is to outline each leaf with some suitable stitch and then fill in one half of the leaf with satin stitch or parallel basting stitches. Angle the stitches to simulate veins.

Stencilling Pottery

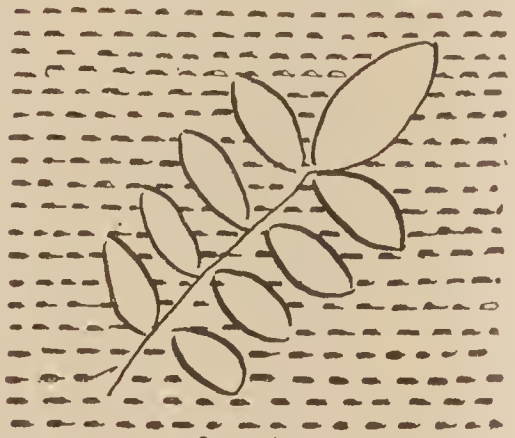
Leaves may be used for underglaze pottery decoration. Use the dry brush technique or simply spray the underglaze color on pot or tile, using the leaf as a stencil.

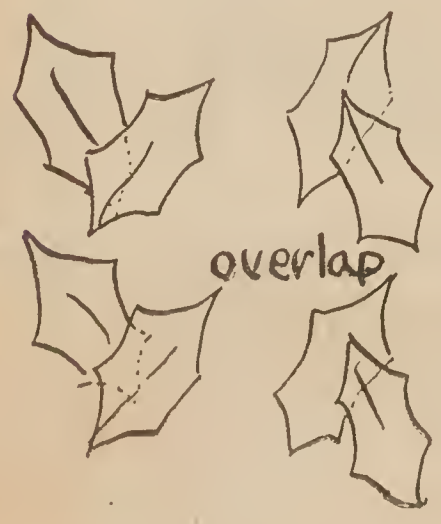
Block Printing

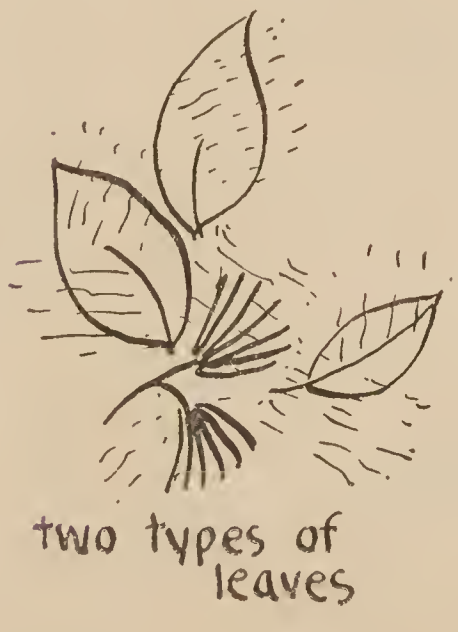
Trace leaf shape on linoleum block and print in the usual manner. There have been many good books written in this subject. Look for them in your public library:

Nature Printing, by David and Jean Villasenor. Published by Walter T. Foster, Box 456, Laguna Beach, California.

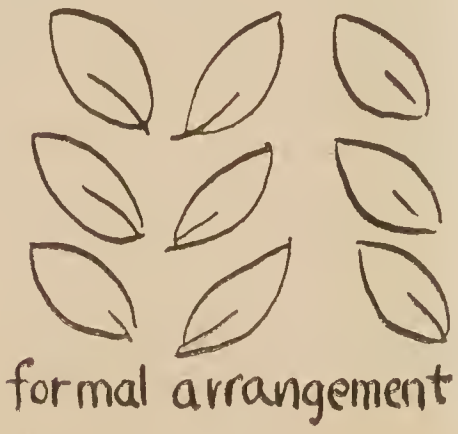
Block Printing on Fabrics, by Florence Harvey Pettit. Published by Hastings House, New York 22, N. Y.











SEPTEMBER GARDENING

By Nenetzin R. White

SEPTEMBER is the ideal month to seed lawns. It is nature's time for seeding, too, and if our lawn grasses were allowed to grow to maturity without being cut, they would ripen and release seeds in late August and during September.

Probably the ideal way to develop a lawn is to grow and plow under a couple of the "cover crops" such as rye, buckwheat, etc. These are called green manure crops and do a wonderful job of incorporating organic matter into the soil. To do this, however, takes a season or two, and most people are just too impatient to wait that long.

Next best is to work in some finely broken up organic material. Peat moss is ideal for this. Many people still like farm manure, but be prepared for lots of weeds if you use it. A good plowing and harrowing or rototilling should follow so that the fertilizer can be worked into the top layer of soil.

If you use a commercial fertilizer, it should be high in nitrogen, and a good lawn food will probably be less expensive than just 5-10-5 because you'll get a higher concentration of nitrogen. Fine raking, seeding and rolling should finish your lawn, except that slopes, and actually the whole lawn, will benefit from a top dressing of straw.

Now, a word about seed. Most lawn mixtures are what we call "shot-gun" mixtures in that they contain three or four types of seed. At least one of these will germinate fast and act as a nurse crop for the finer seeds that take longer to germinate. This has many advantages, for the nurse crop is usually an annual and will not interfere with your future good grasses. The nurse grasses coming up first open up the soil crust and make it more porous for the other seeds. They also give a little shade as the perennials germinate. By using two or three types of good seed you are practically assured of a good stand of grass.

There are exponents of using one pure strain of seed, and I have no argument with them. It just takes a lot of "know how" to use a pure strain of let's say Merion Blue grass, and get a good stand. However, the results are wonderful—a beautiful lawn of just one color. The various fescues and blue grasses make our best northern lawns. Bent Grass is beautiful, too, but I believe it should be left to putting green and golf course. It should be started from sod plugs, then fed, watered, treated and mowed every few days. Also, Bent Grass needs a seven-bladed mower.

I believe most people make too much work out of grading the final surface. They work out every small pebble and stone so that they have virtually nothing but dust left. After all this hard work, if it is a typical New York clay soil, the first rain or watering will make this dust "run together," and you will wind up with a sea of mud. When it dries, there will be a maze of cracks and crevices, with your seed in the deep cracks.

I suggest leaving all the small stones you can on the surface. They help retain moisture, keep the surface flexible and pliable, and help the drainage. Many professional and State specifications to contractors read, "Remove all stones the size of a golf ball or larger." In my opinion golf ball-size stones are a bit big for a fine home lawn, but these specifications point out that stones **should** be left on the surface. Rather than the billiard table-smooth surface most people strive to attain, with much backbreaking work, you should have a rough but level seed bed.

This month is also a good time to feed and reseed your present lawn. A well fed lawn is usually free of weeds, but if you have weeds, use a combination that will weed and feed at the same time. Lawns make their best root growth when the nights are cool in the fall and spring, so feed now.

We'd Like to Hear From You . . .

From time to time, as space permits, we print letters our readers write us about their hobbies. This hobby column has been one of the most popular features of our home department. Sometimes new friendships are made in this way too, as people interested in the same hobby correspond with the letter writers.

One suggestion along this line — when you write to one of the hobbyists, why not enclose a self-addressed, stamped envelope. One reader told us she received almost 100 letters after we printed her hobby in AMERICAN AGRICULTURIST. Postage is quite an item when that many replies are required!

If you have an interesting or unusual hobby, won't you write and tell us about it? We'd like to hear from you.

WHEN SCHOOL BEGINS

By Clara Shaw

The purpling grapes along the wall
Are not the only signs of Fall,
For aromatic scents disclose
The pickle jars in shining rows,
And orange pumpkin dots are seen
Amid the garden's paling green.
While Mothers carry out their schemes
As easily as in their dreams,
The lonesome dogs, without a fuss,
Sit quietly and wait the bus.

Here's what Mr. and Mrs. Joseph Robbins of Bath, N.Y., say about Farm Interphone—



HE SAYS: "I figure it saved our house from burning down. I wouldn't be without Interphone. A fire started in the kitchen. I was in the barn, and my wife called me on the Interphone. I ran to the house. Another two or three minutes and the fire would have been out of control."



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APPLE PIE CONTEST NEWS

By Augusta Chapman, Home Editor

COMING IN fast now are the names of additional county winners in the big statewide Apple Pie Contest which American Agriculturist and New York State Grange are currently sponsoring. Here are the latest champions:

POMONA WINNERS

COUNTY	GRANGE	WINNER
Albany	Bethlehem	Mrs. Richard Bennet
Cattaraugus	Dayton	Mrs. Dorothy Case
Cayuga	Owasco Lake	Mrs. George Saxton
Chemung	Veteran	Mrs. Betty Personius
Chenango	Greene	Mrs. Hazel Winston
Clinton	Champlain	Mrs. Irvin Robinson
Cortland	South Cortland	Mrs. Murl Osbeck
Erie	Collins Center	Mrs. Laverne Buckley
Franklin	Fort Covington	Mrs. Mildred Cappiello
Fulton	Crum Creek	Mrs. Laura Claus
Genesee	Bethany	Mrs. Robert White
Greene	Loonenburg	Mrs. Marion Allbright
Livingston	Caledonia	Mrs. Anna Nichols
Montgomery	Palatine Union	Mrs. M. Houseman
Oneida	West Branch	Mrs. Steve Zbytneivski
Onondaga	Tatt Settlement	Mrs. Adeline Krohl
Ontario	Enterprise	Mrs. Viggo Jensen
Orange-Rockland	Otisville	Mrs. Clyde Whipple
Orleans	Gaines	Mrs. Earl Prestly
Oswego	Parish	Mrs. Blanche DeGarmo
Otsego	West Laurens	Miss Gloria Finch
Putnam-Westchester	Mahopac	Mrs. Adeline LeBlanc
Saratoga	Reading	Mrs. Florence Pickett
Schuyler	Milton	Mrs. Bertha Burekes
Suffolk-Nassau	Sound Avenue	Mrs. Alice Hallock
Sullivan	Hortonville	Mrs. Katie Roemer
Warren	Mountainside	Mrs. Bertha Lockhart
Washington	Hartford	Mrs. Glenn Oatman
Wyoming	Wyoming	Mrs. Louis Gill
Yates	Penn Yan	Mrs. Louise Lilyea



Mrs. Alice Hallock poses with her pie, which won first prize in the Suffolk-Nassau Pomona Contest.

This makes a total of 47 county winners to date, with only 6 more to come in before the finals in October when New York State Grange meets at Syracuse.

Saratoga County's winner, Mrs. Florence Pickett, was also the Pomona winner last year in the Bread Contest. Her county Service and Hospitality Chairman, Mrs. Thelma Smodell, says that Mrs. Pickett is very active in Grange work and has held the office of Lady Assistant Steward in State Grange for six years. She teaches school too and is an organist and choir director.

Six of the seven subordinate Granges in **Fulton County** entered the Pomona contest. Mrs. Delos Brink writes of Mrs. Laura Claus, first place winner, "Mrs. Claus has two sons, works full time and also helps her husband on the farm. She is active in church and missionary work as well as being an active member of her Grange."

Mrs. Mary Rockhill, S. & H. Chairman in **Franklin County**, tells us, "Mrs. Mildred Cappiello, our winner, had a score of 99 in her Subordinate contest. She didn't want to enter the Pomona contest, but our past Juvenile Deputy talked her into entering. She is secretary of Fort Covington Grange and a very active member."

"Erie County's winner, Mrs. Laverne Buckley, is a frequent winner in Grange contests," says chairman, Mrs. Agnes Ortel.

Mrs. Buckley is a member of Collins Center Grange No. 1174, and there were five men entering that Subordinate contest. **Mr.** Buckley came in third! Also, I remember that another Mrs. Buckley (Thomas) of Collins Center Grange won second prize in the State Bread Baking Contest last year, so apparently good cooks run in the family!

Eight American Agriculturist advertisers are cooperating in the contest and giving valuable prizes to winners at the State level. These companies are: Comstock Foods, Inc., Cooperative G.L.F. Exchange, Dairymen's League Cooperative Assn., Magic Chef, Inc., Monarch Range Company, Penick & Ford, Ltd., The Tappan Stove Company, and Western New York Apple Growers Assn.



Mrs. Laura Claus
FULTON COUNTY



Mrs. Mildred Cappiello
FRANKLIN COUNTY



Mrs. Louise Lilyea
YATES COUNTY



Mrs. Florence Pickett
SARATOGA COUNTY



Mrs. Bertha Lockhart
WARREN COUNTY



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Mrs. Louise Beckley
TOMPKINS COUNTY

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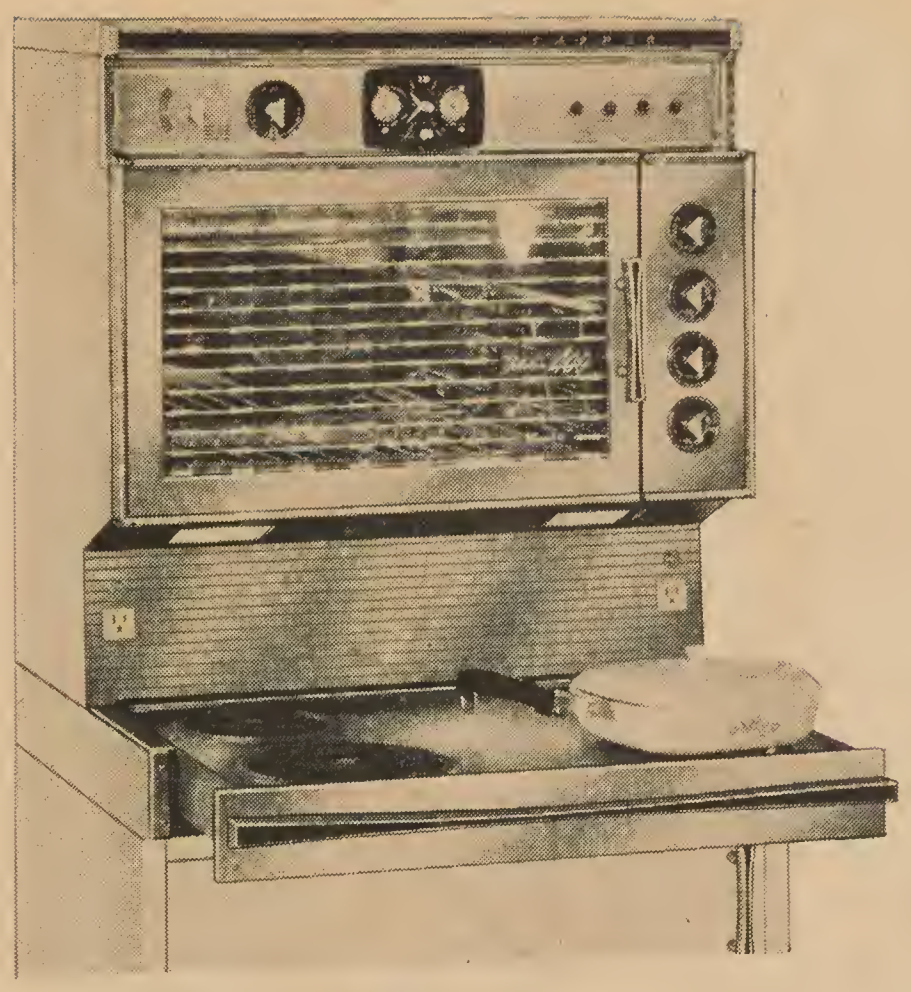


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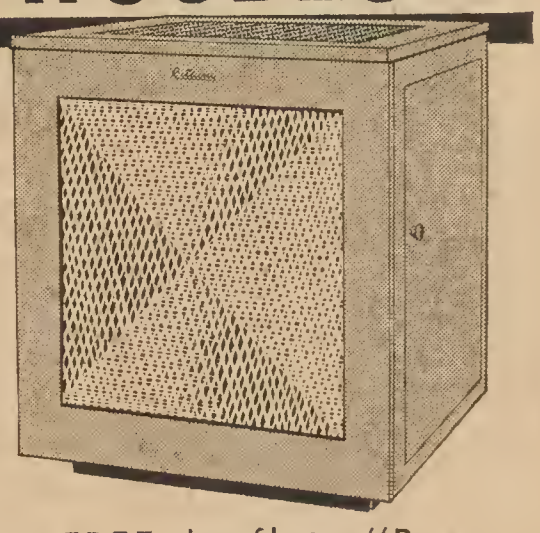
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Pack A Good Lunch

By ALBERTA D. SHACKELTON

WITH VACATIONS over and school bells ringing, millions of boxed meals will again travel to school, shop, office, and meetings. Carried lunches **can** look and taste good as well as be nutritious and, with the right choice of food, **can** travel well. Are the ones you prepare attractive and satisfying, and the opening eagerly awaited when the clock says "Time for Lunch"? Here are some ideas to make nutritious lunches easy for the packer and fun for the eater.

What Is A Good Box Lunch?

Lunch, carried to school or work, is an important meal, not just a between-meal-snack. It should furnish about one-third of the essential nutrients needed each day, and should include some protein-rich food such as cooked or canned meat, fish, chicken, turkey, cheese, eggs, peanut butter, baked beans. These may be used as a main dish, salad or as sandwich fillings.

At least one vegetable or fruit or, better yet, one of each is desirable. These may be eaten out of hand or put in a salad, sandwich, or main dish. Milk to drink, or in a soup or dessert, should be included and another beverage, if desired.

In addition, the lunch should be colorful, attractive, and appetizing and should afford variety from day to day. Contrast in flavor, texture, and form of the different foods, something crisp or juicy, something tart or salty, will help to make the carried lunch more inviting.

Sandwiches

Sandwiches are the backbone of most carried lunches. With the variety of breads available and some thought given to choosing the many different fillings, sandwiches need never become monotonous.

To save time, make a supply of sandwich fillings of various kinds and use on alternate days. Keep fillings in shallow covered dishes in the refrigerator. If the lunch box cannot be refrigerated, fillings of packaged cheese or cheese spread, relish, vegetables, jams and marmalade, peanut butter, and pickled or smoked meats keep best. Salad type and sliced meat sandwiches should not be kept at room temperature longer than four hours before eating. Salad type sandwiches keep better if made from canned meats and fish, rather than leftovers.

Other Lunch Box Foods

Vary the lunch box menu with cold main dishes and salads, or hot dishes such as Spanish rice, macaroni and cheese, chili, hash, baked beans, and stew. Any of these hot dishes may be heated and packed immediately into a wide mouthed vacuum bottle which has been rinsed with hot water. Left over fried chicken, sliced meats, deviled eggs, cottage cheese, cheese cubes or wedges, may be substituted for sandwiches, and buttered bread slices or rolls included in the box.

Welcome desserts are milk puddings, drained canned fruit with custard, fruit cup with coconut, cakes baked in small paper cups, doughnuts, fruit tarts, wedges of pie or cake (stick toothpicks in top of frosted cake or meringue to keep wrappings from sticking). If the days are warm or the lunch box stands in a warm place, do not use cream puffs, custards, or other milk-egg combination desserts because of the danger of spoilage.

Vegetables can include wrapped quarters of tomatoes, radishes, carrot, celery, and pepper sticks, cole slaw, ripe and green olives, pickles, potato and corn sticks. Slip small onions, pitted olives, and cubes of cheese on toothpicks.

Apples, pears, peaches, grapes, bananas, oranges, or any canned or frozen fruit will add sparkle to the lunch box meal.

Hot or cold beverages complete the lunch. If some milk has not been used in the other foods, include it for the beverage, perhaps as cocoa, chocolate milk, or buttermilk. A thin, hot, cream soup will make a refreshing beverage for the lunch box meal, and tomato juice or any fruit juice combination might substitute for milk to drink.

Recipes are given below for date-nut loaf which makes good sweet sandwiches, and a different version of the ever popular brownie.

FROSTED PECAN BROWNIES

4 squares unsweetened chocolate
⅔ cup salad oil
2 cups sugar
4 eggs
1½ cups all purpose flour
1 teaspoon baking powder
1 teaspoon salt
1 cup coarsely chopped pecans
1 square chocolate
1 teaspoon butter
About 1 cup confectioners' sugar

Place chocolate and oil in medium saucepan and stir over low heat until chocolate is melted. Cool and stir in sugar and eggs and beat well. Stir in the flour, baking powder and salt sifted together. Fold in nuts. Spread in a well greased pan about 13 x 9 x 2 inches. Bake in a moderate oven (350°) about 30 to 35 minutes. When done a slight imprint is left on top when touched lightly with finger. Cool five minutes and spread with frosting made by melting chocolate and butter over low heat stirring in sugar and just enough warm water to spread easily. Mark into 2-inch squares.

DATE NUT LOAF

1 8-ounce package dates
1 cup boiling water
1 cup sugar
1 tablespoon shortening
1 teaspoon baking soda
1 egg
1 teaspoon vanilla
1½ cups flour
¼ teaspoon salt
1 cup coarsely cut nuts

Cut dates in quarters and pour over them the boiling water.

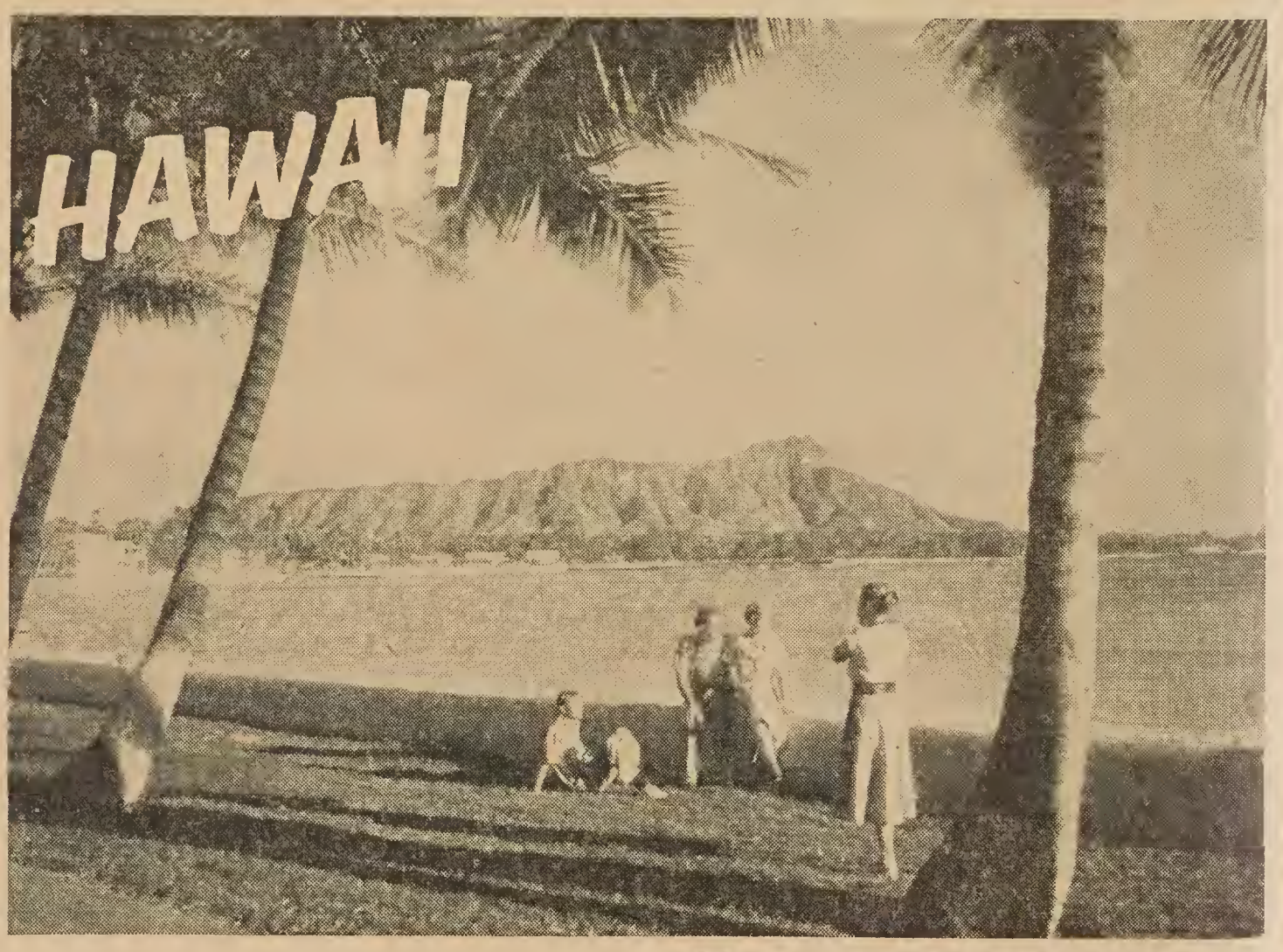
Add the shortening and fat and stir until dissolved. Add vanilla and beat in the egg. Stir in the flour and salt and fold in the nuts. Place in greased bread tin. Let stand 20 minutes and bake in a moderate oven (350°) 60 to 70 minutes or until toothpick inserted in center comes out clean. Turn out onto wire rack to cool. Make the day before for better slicing. Freezes well.

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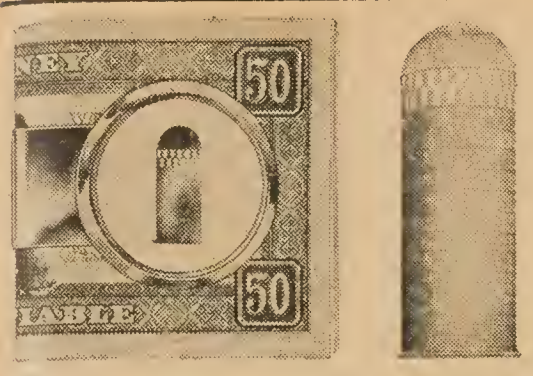
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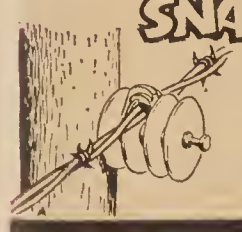
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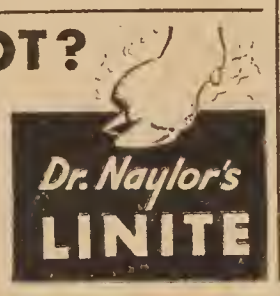
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Fall Forage Management

(Continued from Page 13)

about 1.9 tons of hay in 1960 due to the untimely fall cutting. In the northern valley where the 1959 yields were restricted by drouth, the 1960 average yields of the plots that were not eut in late fall were higher than at the two loeations in the southern valley. The yield reduction in 1960 due to the extra fall eutting in 1959 was less than 0.8 of a ton at the two northern loeations.

Information from a number of states would indieate that when the conditions are sueh that stands are not seriously damaged by untimely fall eutting, the loss of hay yield the following year may be approximately the same as the gain in the year of harvest. However, when the plants are damaged enough to eause death of a large number of plants, then, of course, the slight gain in yield in the year of fall eutting is mueh less than the loss of yield in the years to follow.

Grass plants, of eourse, ean stand more severe grazing or eutting than ean the alfalfa plants; birdsfoot trefoil is damaged somewhat less by grazing than the more upright alfalfa plants.

In summing up, it would appear that the possibility of damaging forage stands by fall cutting is a little less this year than in most years. The farmer must weigh the possibility of damaging his forage stands against the small amount of yield that may be harvested this fall.

Country Pastor

Power to Become

By ARTHUR MOODY

TO AS MANY as reeeived Him, to them gave He power to beeome the sons of God." John 1:12.

By the power of receiving we may beeome sons of improvement, inereasing strength, sharpening pereeption, more keenly aware, more appreeiative of the eternal verities. The results of reeeiving Christ — a new power within helping us to handle the false forees.



ARTHUR MOODY

The power of believing, the test of our belief, is our faith, enabling us to stand fast, to endure, be patient, steady; to "keep your head when all about are losing theirs, and blaming it on you." The atheist has nothing to plant his feet on; the agnostie has an unstable footing. The theist has the Creator's produet and promises on whieh to rely. "To him that believeth, all things are possible."

Develop the power of re-living! How many of us feel too weary to live. We have a sense of weariness that rest does not eure; a fear of aging which is beyond reeovery. Many have discovered that the ills of the individual are alleviated by the power of truth. Others have found that the fears of mankind vanish before a clear-cut demonstration of downright belief. We are sons, not subjects, even of the demands of our own flesh, thank God!

We've had a busy summer working for DAIRYMEN ON THESE PROBLEMS



COMPENSATORY PAYMENTS —

Agency helped protect dairy incomes against influx of outside milk following court decision, helped secure federal hearing, drafted proposals for hearing with other cooperatives.

REGULATION OF PRODUCER-DEALERS —

Agency asked Freeman not to terminate present provisions without hearing, secured federal hearing.

DROUGHT —

Agency worked to get government aid for farmers, asked emergency price relief for rest of '62.

SURPLUS MILK —

Agency continuing move toward producer-owned milk manufacturing facilities to help solve surplus problem.

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WATKINS SALT IN THE AMERICAN HOME FOR 60 YEARS Watkins Glen, New York



Ed Eastman's Page

AN OLD STAMPING GROUND

IN JANUARY 1916 I resigned as principal of the high school at Interlaken, New York, where Belle and I had many friends, packed our furniture in a freight car, and moved down to Walton, Delaware County, New York, to become a county agricultural agent. We were called Farm Bureau managers then! I was the second one in the county, and one of the early ones in the State.

When I awoke the next morning and took one look at those high Catskill Mountains which surround Walton (so typical of almost all the county) you could have had my new job, with me thrown in, for ten cents. I wondered where the farmers found any land to work, for it seemed to me that the Lord must have had a lot of surplus dirt to pile so much of it up in one place.

But I lived to change my mind, for I soon learned that in spite of its beautiful mountains, Delaware County is one of the greatest dairy counties in the world, that it's dairymen are among the best, and that its people are not to be excelled anywhere as citizens and as friends.

So, in the years since, I never miss an opportunity to go back to those Delaware County hills and to renew old friendships. That's just what Margaret Roe, our cousin, Belle and I, and some friends did one beautiful day in the middle of August this year.

When I was in Delaware County, I helped to organize and oversee ten cow-testing associations, now called dairy herd improvement cooperatives. I think that was more than any other county had then or since. Each of these associations had a milk tester who regularly visited members of his association, weighed the milk of each cow in the dairy, tested it for butterfat, and made a record. At the end of the year, the dairymen in the association knew what each of their cows had produced in both milk and butterfat.

It is safe to say that the work of the cow-testing associations and the dairy herd improvement cooperatives have done more than almost any other single practice to get rid of boarder cows and to improve the quality of the herd.

One of the best of these boys who worked as cow testers when I was in Delaware County was Lynn Loomis, whom we called on the other day when we went back to Delaware County. Mr. and Mrs. Loomis live at LOOMACRES in Chenango County at Afton, just across the Susquehanna River from Delaware County.

With no financial start, Lynn and his young wife bought a farm. Then, some years later (about fourteen years ago) they bought their present farm, paid for it, and have a beautiful home and an up-to-date, well-equipped dairy barn and farm. They made a fine life for themselves and raised two daughters.

At present, Lynn is milking thirty-three head of registered Holsteins, with ten head of young stock. His production averages about 12,000 pounds. He has always been a member of the Dairymen's League. His cows are milked by machine; the milk is cooled in a tank and pumped directly from the tank into a big milk tank truck, and sent on its way to New York City. (Some different from the way milk was handled in 1916 when I was county agent and Lynn was a cow tester!)

Lynn's comparatively small but efficient farm operation is another example that a farm still does not have to be large in acres or dairy providing the production per unit is high and the operation efficient.

In addition to all the other things Lynn has done, he was a soldier in World War I, serving some of the time as stretcher bearer in France in the famous 77th Division.

When I asked Mr. and Mrs. Loomis my favorite question: "If you had it to do over again, would you still go into farming business?" they both answered with an emphatic "Yes." Lynn said he couldn't imagine spending his time in a hot shop on an assembly line, doing just the same job, day after day.

When we went inside their beautiful home with all its modern conveniences, we knew one reason why they had said "Yes" to my question about farming as an occupation. Also, we knew why they had answered that way when we sat on their front lawn and looked across the Susquehanna River for miles to the Delaware County hills beyond.

* * * *

Leaving our friends, Lynn and Mrs. Loomis, we went on to Unadilla and over the old Catskill Turnpike through Franklin to Meridale and Delhi, the county seat, where I have held many meetings.

Turning left from Delhi toward Bloomville on Route 10, we came shortly to the Elk Creek Road, where we made another lefthand turn to the farm of Arthur Thompson to visit his father, Russell. Last winter Russell was named "Jersey Man of the Year" by the Delaware County Jersey Cattle Club—and with good reason. That was why I wanted to visit him. In a county famous for its Jerseys, Russell has been a leader with his cattle of that breed for a lifetime. He was born and raised on this farm and started farming with his father in the early 1900's. He began with grade Jerseys, but soon graduated to purebreds, and the products of his fine herd became foundation stock in dozens of Jersey farms throughout the whole section.

Russell Thompson lost his wife a few years ago. Like so many married people who have built a farm business and a long life together, he finds it lonely living alone, so he goes back to the farm home almost every day in order to have something to do. When I asked him if he would farm it again had he his life to relive, he said, "Yes" —but he thought it would be much harder now than it used to be because of the increased capitalization required. He was not very optimistic, either, about the future of purebred Jerseys, saying that artificial breeding had reduced the market for purebred bulls and that the market was declining for milk with high butterfat.

Russell's memory went back to the days when there was little or no competition from oleo or milk substitutes, and when there was a real market for Jersey milk testing high in butterfat. He and his son recognize that in farming — as in everything else — one has to meet change with change, including enlarging your farm and dairy herd. In addition to the original farm, the son has added the farm above his with its 107 acres and the fine old farm home has been modernized.

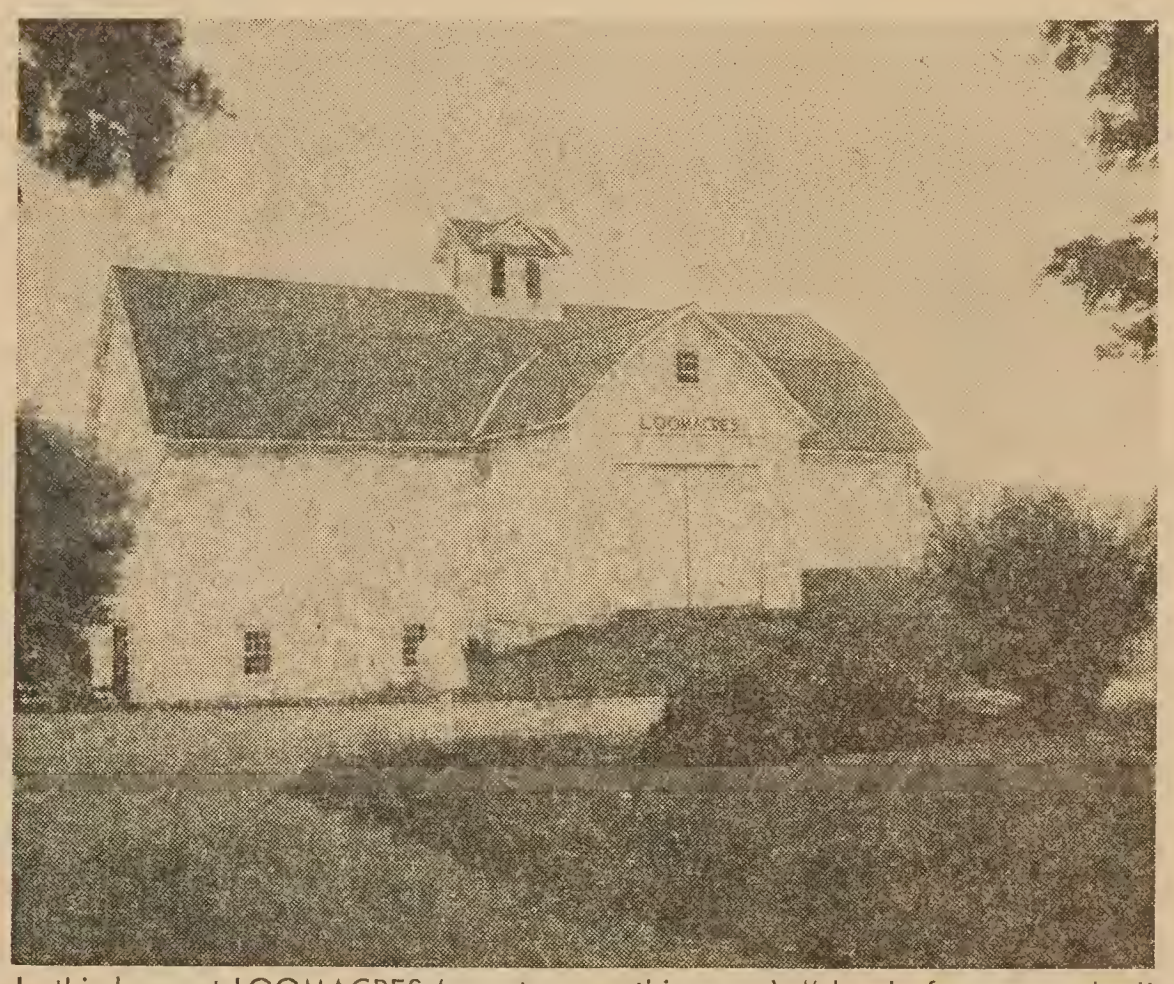
Russell has two sons: Arthur, who operates the home farm; and C. Alfred Thompson, who is manager of the G.L.F. Store at North Collins, New York.

Arthur Thompson has five children—one of whom was very competently operating a big tractor while I was there, and who told me that he loves to farm and expects to make it his life business.

The natural soil of Delaware County is very acid. When I was there in 1916, lime was scarce and high in price, chiefly because of transportation difficulties. But since then farmers are using it in great quantities, and it has been a big factor in helping them to grow better grass and legumes.

A stranger riding through the county is amazed because dairymen can keep so many cows on those steep hills and sometimes stony pastures. One answer is plenty of rain. Rainfall in Delaware County is way above the average in the State, and it is particularly noticeable this year. The drought has been bad there, of course, but not nearly as bad as in other sections. Rain has made it possible for Delaware County dairymen to have good pastures which are full of live springs, and to raise large quantities of good hay. These factors, together with the skill and hard work of the dairymen themselves, are the reasons why Delaware is a great dairy county.

We came away from the Thompson and Loomis farms (as we always do when visiting farmers) with renewed faith in this nation and its agriculture, thinking all over again that if farmers can be let alone to operate their business individually and in their own organizations, they will build a good life for themselves and for all those dependent upon them.



In this barn at LOOMACRES (see story on this page), "day before yesterday" the cows were milked by hand, the milk stored in cans that were lifted by main strength into a tank, with water cooled by ice dug out of the icehouse.

Behold the change! Today, the large dairy is milked by machine, milk is cooled electrically in the big tank, and then pumped from the milk cooler into the milk tank truck. In the entire process from the cow to consumer, there is no chance of the milk being contaminated.

EASTMAN'S CHESTNUT

AN OLD Delaware County story is about the stranger who was traveling along the road in the county and looked up to see a man tumbling head over heels into the road just ahead of him. When the stranger hurried up to see what was the matter, the farmer said:

"I'm pretty nigh discouraged. That's the third time I've fallen out of my cornfield this morning!"

Another Delaware County farmer used to claim that his land was so steep he couldn't stand on it, so he had to plant his corn with a shotgun.

MERCK

CATTLE HEALTH BULLETIN

CALF SCOURS IN YOUR HERD? THIS KILLER CAN BE LICKED!

This acute, highly infectious and deadly disease of young calves is characterized by profuse, watery, light-colored bowel movements. Several bacteria, including *Escherichia coli,* organisms of the *Salmonella* group, and a virus *(Myagawanella bovis)* have been incriminated as possible causes of infection.

Some outbreaks of scours occur (in the presence of one or more of these infective agents) as a result of the lowering of the calf's resistance. This may be due to one or more factors, such as improper disinfection of the umbilical cord at birth, failure to supply an adequate feeding of colostrum or first milk, poor diets or faulty feeding habits, deficiency of vitamins A and D in the dam's diet, sudden changes in the weather, and undue exposure to cold, drafts or unsanitary quarters.

Affected calves, weakened by the persistent scouring and dehydration, are particularly susceptible to fatal outbreaks of pneumonia. Recovered animals are sometimes unthrifty in appearance and are slow in making normal weight gains.

TREATMENT WITH SULFASTREP HELPS CUT LOSSES

The TREATMENT of scours can be effectively carried out with SULFASTREP® *Boluses. These boluses contain three hard-hitting drugs with a wide range of antibacterial activity. Two of these drugs . . .* SULFATHALIDINE® *and streptomycin . . . go to work in the gut itself where they are most needed. The third drug, sulfamethazine, gets into the bloodstream to help check infections that "spill over" into the circulatory system.* SULFASTREP *also contains kaolin to adsorb bacterial toxins and provide a protective coating for the intestinal tract to help shorten recovery time.*

DON'T LET SCOURS GET STARTED

Sanitation, warmth and proper feeding are key factors in *preventing* outbreaks. Disinfect the navel with tincture of iodine at time of birth. Make sure the calf has an adequate supply of colostrum for at least 24 hours after birth. Try to avoid overfeeding or exposure to cold, drafts and sudden temperature changes.

Give 1-2 SULFASTREP Boluses *to calves daily for 3 to 5 days after birth. Extra Vitamin A and D Mixture, a Merck product, may be fed to cows during the last three months of gestation.*

NOTE: For best results with SULFASTREP *and other Merck Animal Health Products, consult a veterinarian for diagnosis and advice before administering.*

Merck Chemical Division, Merck & Co., Inc., Rahway, New Jersey.

Service Bureau

CONGRATULATIONS!

The Aluminum Siding Association, recognizing that exaggerated claims for this material were being made in some places, has promoted a new code of ethics. Members of the National Paint, Varnish and Lacquer Association, who make the finishes for aluminum siding, were the first to object to the wild claims being made. As a result, the Federal Trade Commission has set up trade practice rules to eliminate fraudulent claims that aluminum siding never has to be painted or repaired. Legal action will be taken against violators.

The new code prohibits the following claims: that colors on aluminum siding will remain unchanged or are impervious to the elements or will last a lifetime; that aluminum siding is everlasting or made of indestructible materials; that it provides permanent insulation; that its insulating properties exceed that of any other metal or material; that nothing can damage it.

Also prohibited is so-called "bait" advertising, or representing to a buyer that his home will serve as a "model," leading him to believe he will receive a commission on sales in his neighborhood or that his price will be reduced.

Congratulations are due both the Aluminum Siding Association and the National Paint, Varnish and Lacquer Association. This is a fine example of an industry promoting its own code of ethics in order to protect the consuming public from exaggerated or misleading claims.

SELLING HAY

With the shortage of roughage in many sections hay buyers are busy in hay surplus areas. New York's Agriculture Commissioner Don J. Wickham has cautioned all farmers selling hay to deal only with licensed and bonded dealers or with individuals who are buying feed for their own animals.

Legitimate hay dealers are licensed by the Department of Agriculture and Markets; their bonds guarantee payment to the persons with whom they do business. Any farmer who is not sure that he is doing business with a qualified dealer should call Albany GR4-4490 (area code 518) for immediate information on the dealer's certification. In the case of farmers buying feed for their own animals, Wickham warns that the seller will do well to make certain that the buyer is indeed who he represents himself to be.

CAN YOU HELP?

Mrs. Ted Lukic, Moodus, Conn. would like to buy the book, "Eat To Grow Young," by H. A. Hayes.

If anyone has copies of the C. A. Stephens' stories, or of the Youth's Companion containing his stories, please contact Mrs. Thaddeus V. Barrett, Martville, N. Y.

Mr. C. A. Shibles, Beaver Dam Rd., Berwick, Me. would like the old railroad poem, "Bill Mason's Ride."

Mrs. C. Wesley Lee, R. 3, Corning, N. Y. would like to find a red or blue glass hen on nest.

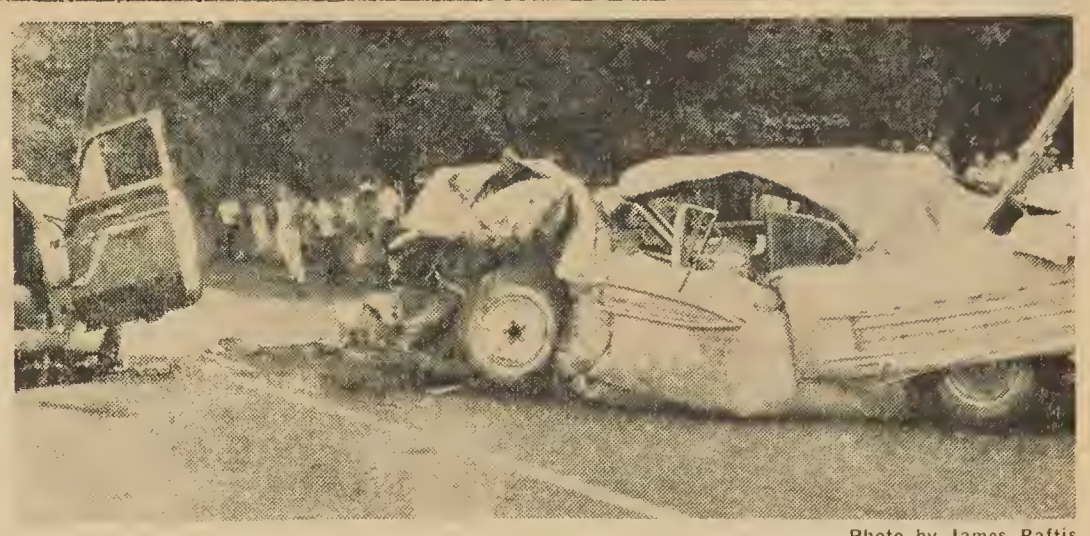
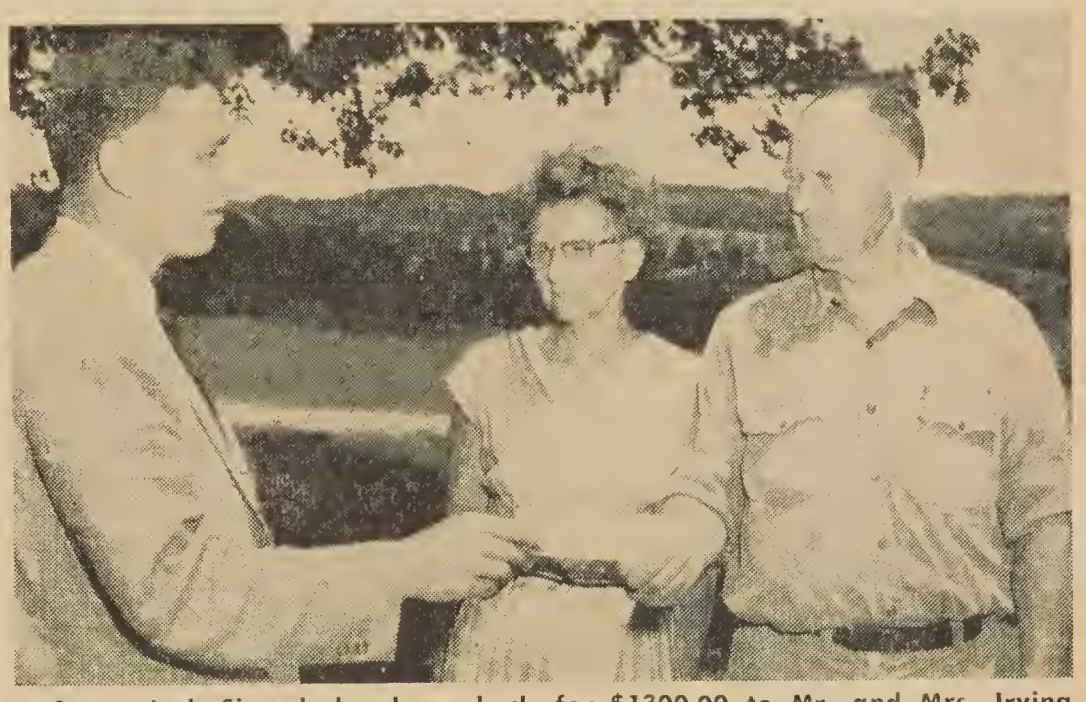


Photo by James Raftis

Driving to town Sunday afternoon Robert Brown of R.D. 1, Rome, Pa. met sudden death in a headon collision (his car pictured). Two teenagers in the other car also were killed.



Agent Jack Sincock hands a check for $1300.00 to Mr. and Mrs. Irving Brown, parents. Carrying policies on all the family they said, "we sure are glad we kept up all our policies as they have helped out when we had small accidents as well as when we lost our son."

Anna Rinas, Altamont, N. Y. — Cut head on metal bar	157.70	Dorothy A Sherman, Pulaski, N. Y. — Getting off boat—fractured ankle	188.75
Glenda L. Dunlap, Cuba, N. Y. — Foot slipped in lawn mower—toe amputated	260.94	Joseph R. Nichols, Burlington Flats, N.Y. — Thrown from tractor—fractured arm	187.86
Roger Porter, Randolph, N. Y. — Kicked by cow—fractured ankle	374.36	Mildred F. Nichols, Edmeston, N. Y. — Pinned between tractor & load of hay—body bruised	146.42
Frank Breitenback, Weedsport, N. Y. — Bull smashed hand against steel bar	590.00	Jamie H. Crowe, Canton, N. Y. — Auto accident—head injuries	440.00
Frank Rizzo, Sr., Portland, N. Y. — Fell in truck—internal injuries	709.36	Clayton F. Trombly, Rensselaer Falls, N.Y. — Pinned by cow—injured chest	227.73
Michael Boor, Horseheads, N. Y. — Slipped on barn cleaner—internal injuries	406.23	Alice V. Bergstrom, Jefferson, N. Y. — Fell over hassock—fractured rib	203.55
Chris F. Thomsen, S. New Berlin, N. Y. — Fell—fractured arm	180.76	Harold Cooper, Watkins Glen, N. Y. — Truck accident—whiplash injury to neck	453.57
Marshall F. Whelden, Jr., W. Chazy, N.Y. — Auto accident—injured knee & bruises	177.13	George B. Akins, Interlaken, N. Y. — Burning trash—severe burns in arm, shoulder & chest	115.00
Cyrille A. Babbie, Champlain, N. Y. — Tree kicked back & fell on foot	129.28	Esther Kilmer, Corning, N. Y. — Fell—fractured arm	535.87
Judson E. Wilkins, Homer, N. Y. — Pinned by horse—fractured leg	691.55	Edgar L. Van Skiver, Jasper, N. Y. — Playing ball—injured back	714.45
Roger Van Valkenburg, Harpersfield, N.Y. — Truck overturned—fractured skull—facial cuts	417.01	Alton B. Crumley, Ferndale, N. Y. — Kicked by horse—fractured arm	212.86
Carlton F. Gernold, Boston, N. Y. — Auto accident—injured head & elbow	500.21	Nelson J. Brownell, Dryden, N. Y. — Driving tractor—fractured wrist	192.10
Wallace J. Bova, North Bangor, N. Y. — Fell from tractor—injured back	163.57	Harry D. Quick, New Paltz, N. Y. — Fell off load of hay, broke arm & injured shoulder	507.50
George Bumstead, Johnstown, N. Y. — Truck accident—bruised face, hand & knees	141.43	Thomas H. Sargent, Williamson, N. Y. — Slipped—injured back	135.00
Violet Colton, Alexander, N. Y. — Fell from ladder—injured back & pelvis	287.28	Herbert G. Sicling, Lyons, N. Y. — Gored by bull—injured leg	137.67
Jennie Roberts, Cold Brook, N. Y. — Slipped on porch—fractured leg	1325.00	Robert R. Calkins, Johnsonburg, N. Y. — Tripped & fell—fractured ankle	534.89
Mary Swerdoski, Sackets Harbor, N. Y. — Slipped on tile floor—injured back	377.13	Kyle H. Glosser, Warsaw, N. Y. — Knocked down by cow—injured knee	628.21
Bernard C. Walrath, Antwerp, N. Y. — Caught in power shaft—injured shoulder & bruises	172.39	Clyde V. Scott, Himrod, N. Y. — Ran into low hanging beam—injured eyes	273.15
Joseph LaLonde, Jr., Castorland N. Y. — Gored by cow—internal injuries	670.20	Joyce J. French, Owego, N. Y. — Fell from tree, broke both arms	351.72
Gerald J. Labarbera, Mt. Morris, N. Y. — Auto accident—fractured ankle, bruises	740.05	Ralph E. Mattison, Osceola, Pa. — Fell from roof of house—fractured shoulder	269.90
Benjamin Casolare, Canastota, N. Y. — Caught hand in press—crushed & lost fingers	1335.00	Willard Seelye, Troy, Pa. — Hit by branch—fractured ribs & bruises	257.24
Clarabell Smith, Spencerport, N. Y. — Fell—injured neck	938.87	William A. Leslie, Erie, Pa. — Fell from silo—injured elbow	108.57
Alice Knapik, Amsterdam, N. Y. — Auto accident—injured shoulder & bruises	382.86	Nina I. Perkins, Oswayo, Pa. — Slipped—injured back	105.71
Leslie W. Martin, Verona, N. Y. — Driving tractor from burning barn—severe burns	207.86	Myrtle L. Thomas, Friendsville, Pa. — Fell—injured ankle	513.50
Samuel C. Pitcher, Sr., Warners, N. Y. — Fell off tractor—injured chest & knees	397.00	Ivan Stevenson, Honesdale, Pa. — Kicked by cow—injured back	157.14
Ruth P. DeMartinis, Holcomb, N. Y. — Fell out of car—injured legs, arm & shoulder	331.95	Andrew D. Booths, Jr., Waymart, Pa. — Cut fingers using power saw	220.00
Harold L. Hansen, Unionville, N. Y. — Butted by cow—fractured leg	361.00	Grace Waldrick, Phillipsburg, N. J. — Auto accident—head injuries & bruises	247.14
Woodrow W. Doty, Jr., Warwick, N. Y. — Auto accident—fractured knee & bruises	320.00	Dennis E. Nagy, Andover, N. J. — Fell—injured back & arm	319.20
Edith B. Baker, Albion, N. Y. — Fell—injured back	661.76	John R. Wilson, Allentown, N. J. — Tractor accident—broke ankle	348.00
		Edward Riordan, Farmingdale, N. J. — Fell down silo—injured ankle	200.00
		Jean Brooks, Pemberton, N. J. — Pushed by cow—internal injuries	612.65

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

NORTH AMERICAN COMPANY

FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)

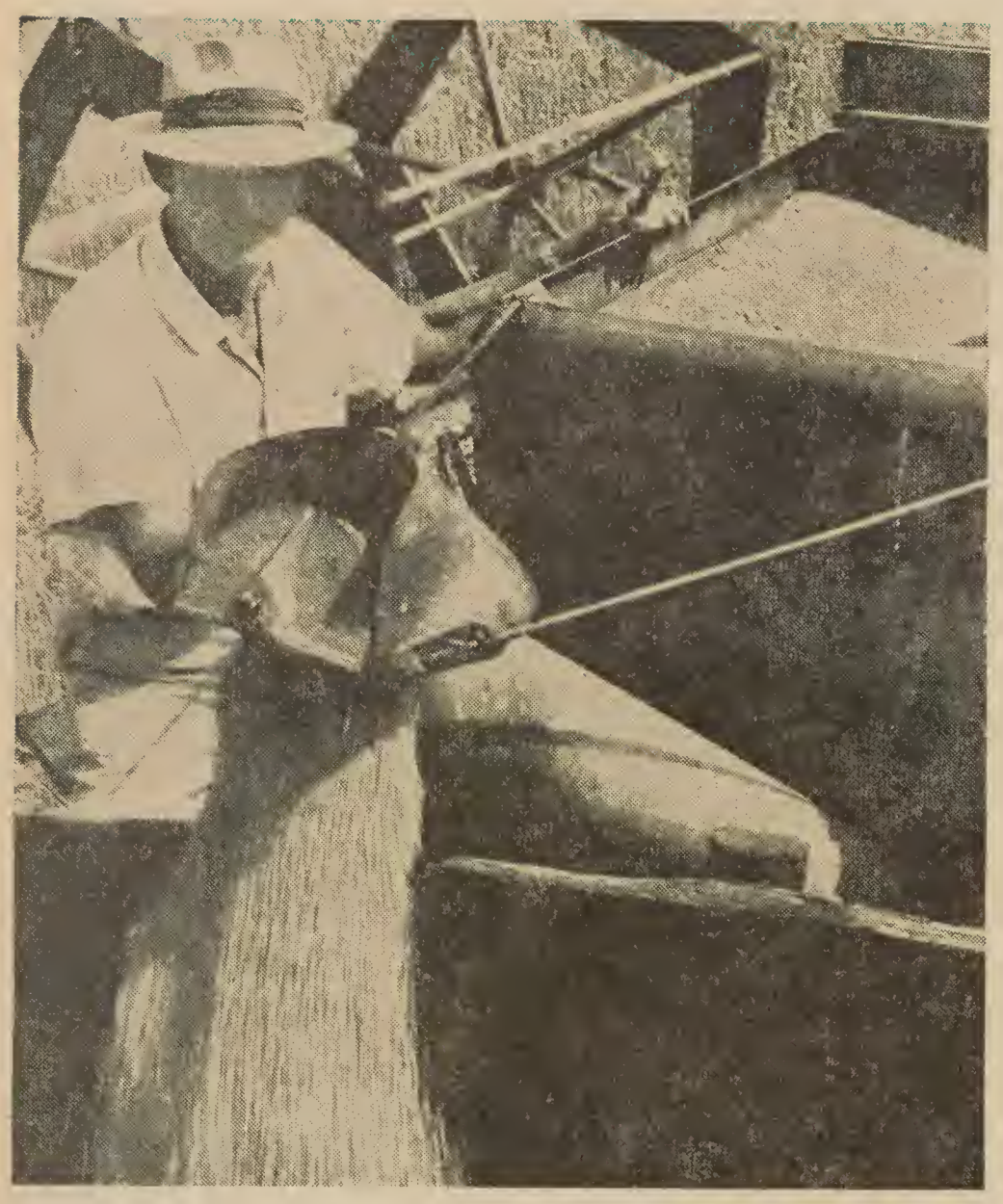
GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING ITHACA, NEW YORK

Worth More Because It Does More!

Armour Vertagreen®

Makes Fall-Seeded Crops More Profitable



Charles Marshall — Trilla, Illinois

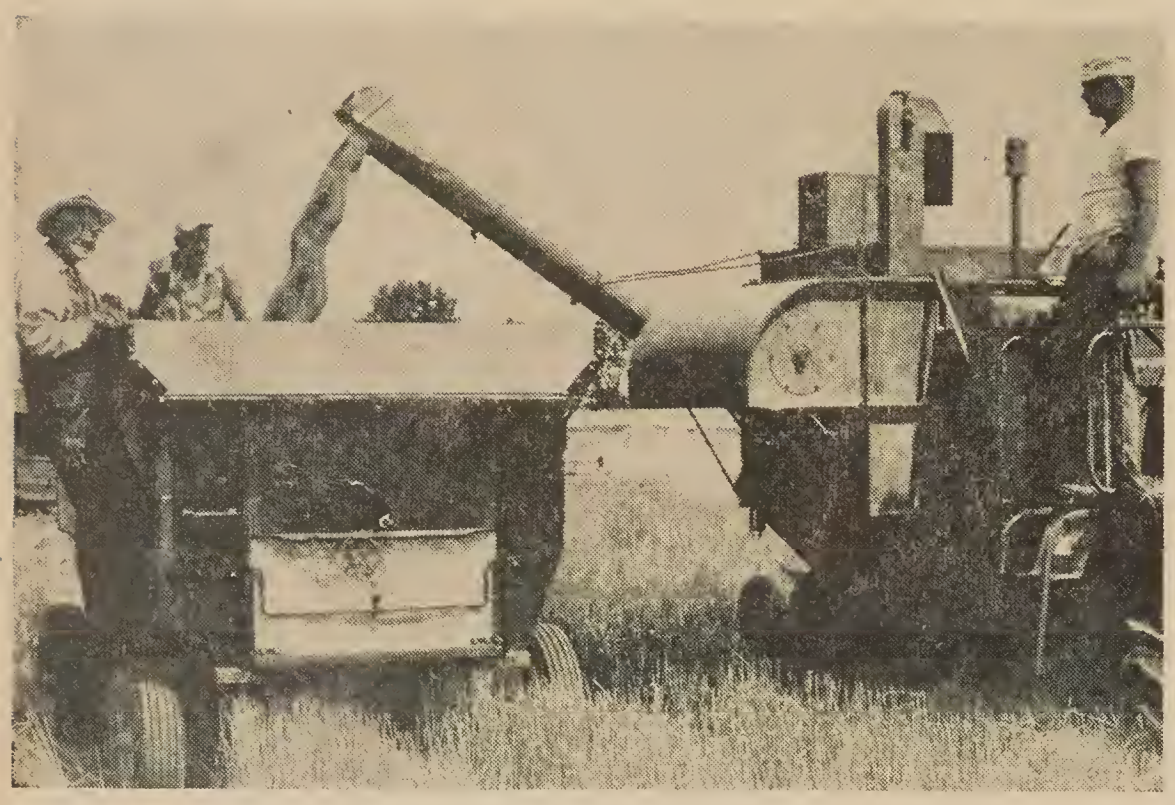
Here's what experienced growers think about Vertagreen for Commercial Crops:

Charles Marshall of Trilla, Illinois, used Vertagreen 10-10-10 under his wheat and increased the yield 9 bushels (or $15.30) to the acre over the previous year. He said: "If Vertagreen will make this much difference, I will use it more next year!"

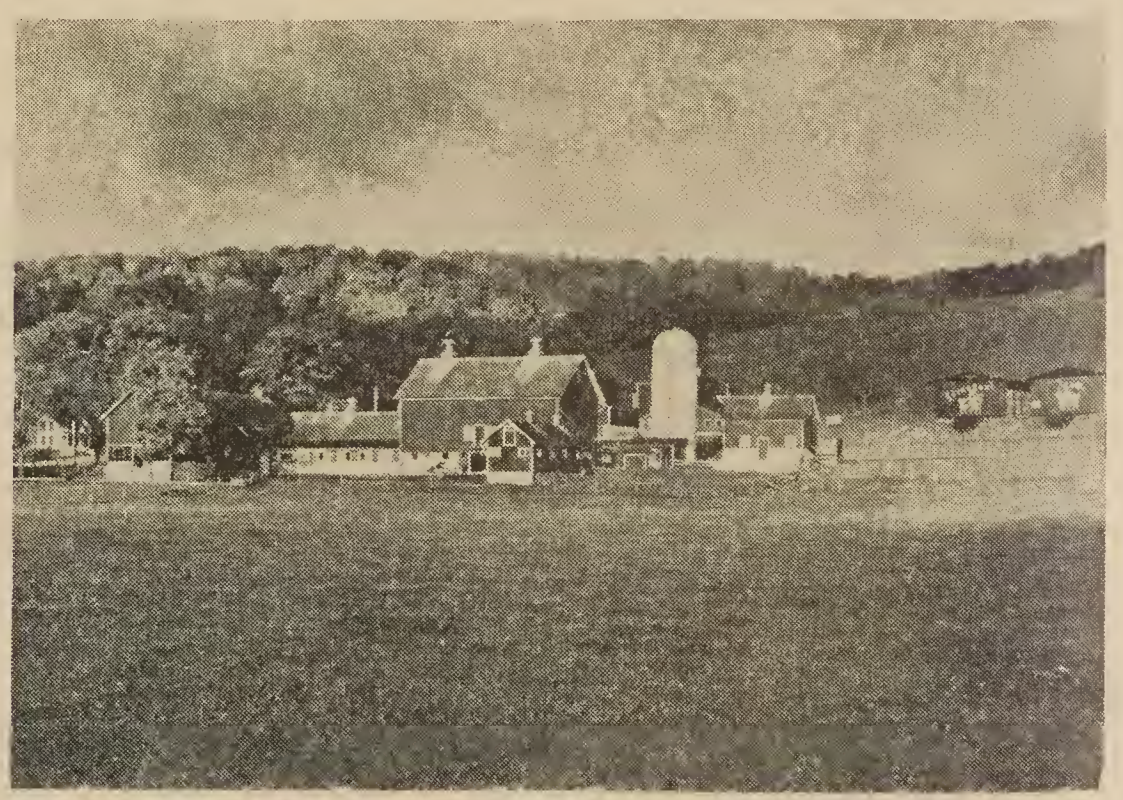
Fred McCandlish of Toledo, Illinois, used Vertagreen on his wheat, oats, clover and pastures. He said: "Instead of costing me money, Vertagreen makes me money. ($16.43 net per acre on wheat) Vertagreen does the job!"

Gordon Parsons of Glensfoot Dairy Farm, Cherry Valley, N.Y.: "Vertagreen gave me superior yields and improved the general health of my herd. After using Vertagreen for five years on my pasture, my veterinary bills were only 50% of what they were previously!"

These farmers and many more from all sections agree that Vertagreen, Armour's premium fertilizer, gives a profitable start to fall-seeded crops. This year, improve the quality and quantity of your yield with Armour Vertagreen for Commercial Crops . . . the fertilizer that's "Worth More Because It Does More!" See your friendly Armour Agent soon!



Fred McCandlish — Toledo, Illinois



Glensfoot Farm — Cherry Valley, N.Y.

ARMOUR AGRICULTURAL CHEMICAL COMPANY



Other Armour Quality Mixed Fertilizers And Materials

Mixed Fertilizers, bagged and bulk / Ammonium Nitrate / Nitrogen Solutions / Anhydrous Ammonia / Ammonium Phosphate Triple Superphosphate / Phosphate Rock

Founded 1842

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

OCTOBER 1962

That explorer in the green jungle of a whopper corn crop is Art Hodges of Bernardston, Massachusetts.

They Feed "Heavy" On Corn Silage

By HUGH COSLINE

ARTHUR HODGES of Bernardston, Massachusetts, says, "My cows never get hay after they freshen for the first time. Their roughage has been 100 percent corn silage for 12 years." Art has 120 head of purebred Holsteins, with around 70 milkers, and grows 150 acres of corn.

"I still feed some hay, but I am aiming toward 100 percent corn silage," says Kay Andrus of Mansfield Center, Connecticut.

Kay grows 140 acres of corn for 125 milkers. He rents much of the land he works, and some of it as far as 8 to 10 miles from the farm. "It's much simpler," he says, "to grow corn and get it to the farm than to harvest hay that far away."

"If I had to get along without either hay or corn silage, I'd rather get along without hay," commented Conrad Nelson of Norwich, Connecticut. Conrad has a "one man farm." with a hired man in the summer. He started farming in '51, grows 52 acres of corn.

Several other New England dairymen visited recently have increased their acreage of corn silage and are feeding less hay. They include George Gadboy of Colchester, Connecticut; John Wright, Greenfield, Massachusetts; Clyde Leonard, Bernardston, Massachusetts; and Lou Longo, Glastonbury, Connecticut.

Here are some of the reasons given for the increase in corn silage:

1. We can grow more T.D.N. per acre than with any other crop.
2. Corn-growing costs have been reduced faster than costs of growing grass. Reasons include higher plant population, heavy fertilization, chemical weed control, and other factors that have increased yields per acre.
3. Good farm land in much of New England is limited, and it's important to grow as much feed per acre as possible.
4. Cows produce well with corn silage as a roughage.
5. Weather is much less of a hazard to corn harvest than in putting up hay. Art Hodges pointed out that at best a considerable amount of hay gets wet every year, and that he doesn't have to wait until the "dew is off" to begin chopping corn. He

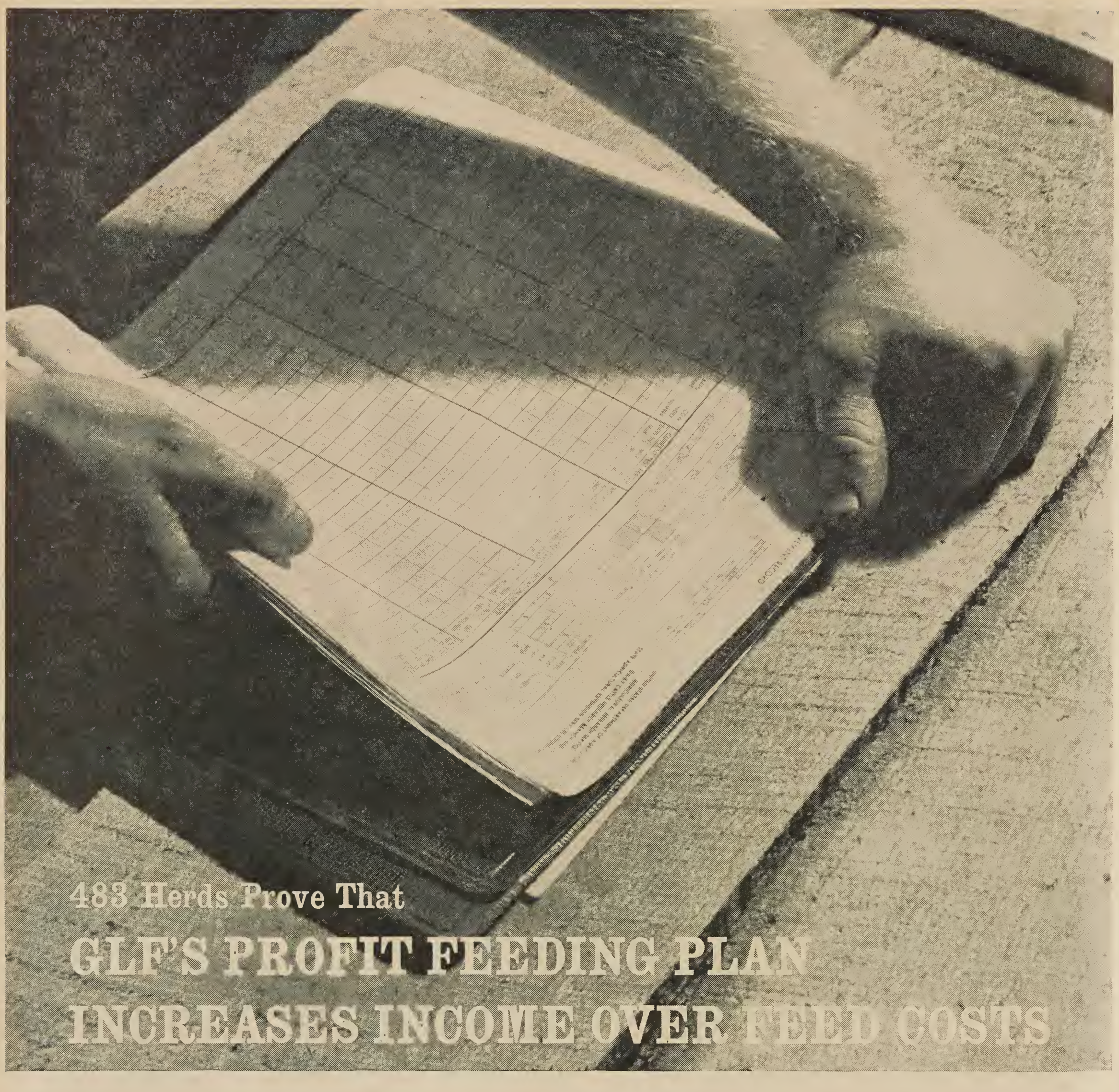
(Continued on Page 30)

FEED MORE CORN SILAGE?

With a shortage of hay but a pretty good corn crop, northeastern dairymen are asking how much corn silage they can safely feed. For the years ahead, some wonder whether corn silage might be the only roughage in some cases. Here are some experiences.



Kay Andrus, Mansfield Center, Connecticut, chops corn. Note the double rows four inches apart, used to push up plant population per acre—essential to really high yields.



This summer we made a study of 483 herds (19,800 cows). All had been managed according to GLF Profit Feeding Plan principles, for one or more years. Only those PFP herds that had DHIA records were used.

WE LEARNED THAT...

...most modern dairy cows respond to higher grain feeding—not only in more milk, but also more income over feed costs.

...those dairymen who used their records to cull their low yielding cows (PFP Point #1), increased their income considerably.

...all-year-round feeding of hay and silage (365 days) means *without any doubt whatever* more money in the farmer's pocket.

...more grain in *early* lactation makes money. This is known as Lead Feeding.

...some cows do not respond to higher grain feeding.

OF 483 HERDS, 85% SHOWED GAINS...

51 herds showed an increase in income-over-feed-costs of $62 per cow per year.

60 herds.....$33 per cow per year.

102 herds.....$27 per cow per year.

199 herds.....$15 per cow per year.

And 71 herds showed no significant increase in milk production. (Most of these herds had only a few cows or were on too short a time to influence the DHIA records).

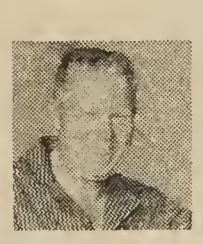
Call in your GLF Dairy Representative. Put a few of your just-fresh cows on PFP. In a month, compare their income with the rest of your herd. You'll prove that the GLF Profit Feeding Plan brings out the full profit potential of your dairy cows.

Cooperative GLF Exchange, Inc.

DAIRY FEEDS AND SERVICES GLF Quality

"NO UNEVEN WEAR AS WITH OTHER TIRES."

EARL HUNTER,
RIRIE, IDAHO



"LOOKS LIKE THEY'LL WEAR BETTER THAN ANY TIRE I'VE TRIED!"



GEORGE FEIT,
GREELEY, COLO.

"THEY DON'T SCUFF OR CUP LIKE OTHER TIRES DO."



LEVI CLYMER,
QUAKERTOWN, PA.

"THESE TIRES REALLY SLOW DOWN ROAD-WEAR!"



CRAIG BRADEN,
CLINTON, ILL.

"ON THE ROAD THEY WEAR BETTER AND RIDE EASIER."



ROY HARVEY, JR.,
BROOKVILLE, IND.

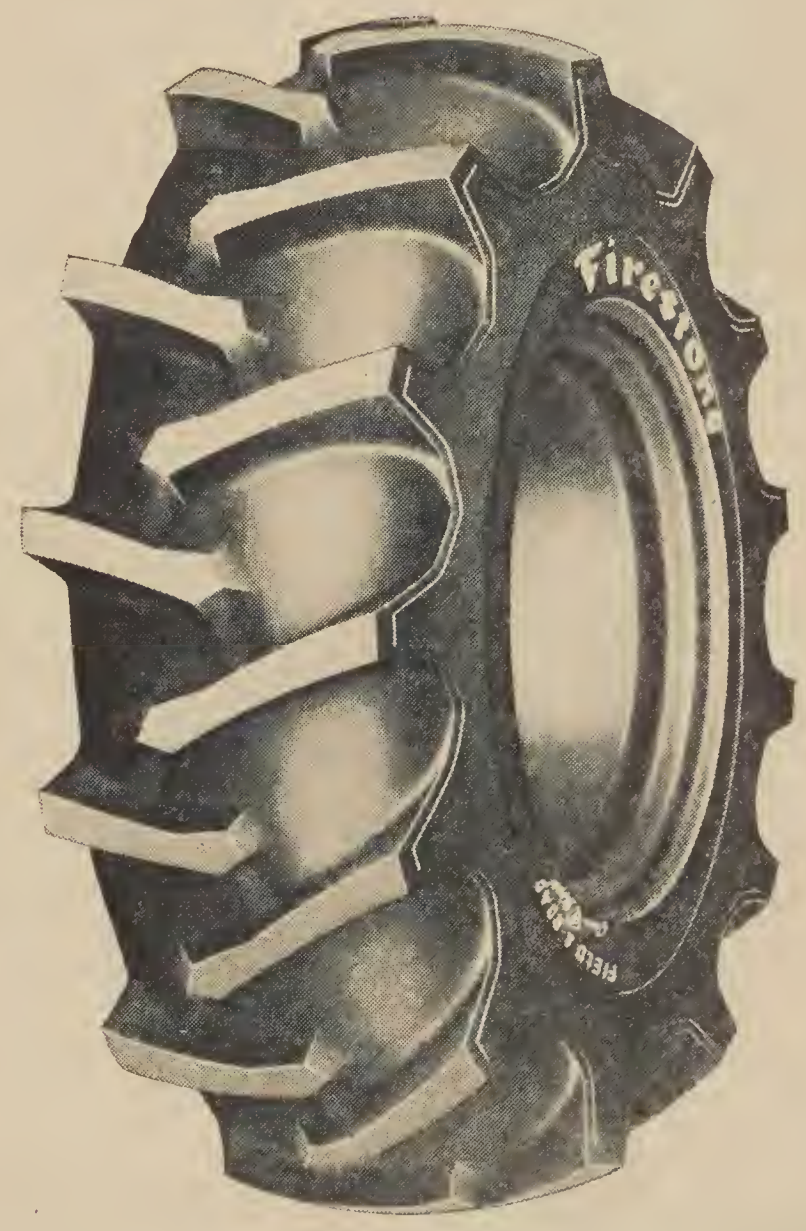
"THESE TIRES ARE THE ANSWER FOR HIGHWAY TRAVEL!"



THOMPSON MATTHEWS
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Firestone Field & Road Tractor Tires end excessive road-wear for farmers everywhere!

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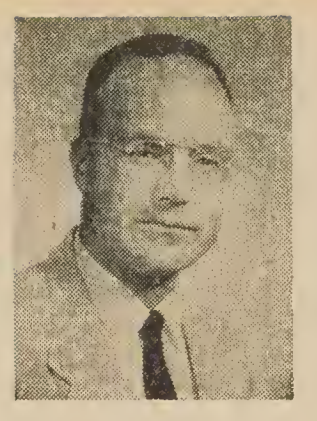
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Editorials



By Gordon Conklin

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CALLING THE SHOTS

FARM MANAGEMENT research always shows wide differences in income among farms, even though they all be of the same type, in the same region, and selling products to the same market.

In a recent study of dairy farming in the Oneida-Mohawk region of New York State, it was found that 27 percent of the surveyed dairymen having 20-39 cows had a **minus** labor income. But 14 percent of this same group made $4,000 or more annually. Of the dairymen having 40-59 cows, 20 percent had minus labor income, but 24 percent made $6,000 or more.

The core of farming success is management. It's hard work constantly to push toward doing a better job, but we reap only as we sow.

WELL SAID!

HERE'S AN anonymous prayer that was written for the middle-aged, but it has much to say to everyone, regardless of his years:

"Lord, Thou knowest better than I know myself that I am growing older and will some day be old. Keep me from the fatal habit of thinking I must say something on every subject and on every occasion. Release me from craving to straighten out everybody's affairs. Make me thoughtful, but not moody; helpful, but not bossy. With my vast store of wisdom, it seems a pity not to use it all, but Thou knowest Lord, that I want a few friends at the end.

"Keep my mind free from the recital of endless details; give me wings to get to the point. Seal my lips on my aches and pains. They are increasing and love of rehearsing them is becoming sweeter as the years go by. I dare not ask for grace enough to enjoy the tales of others' pains but help me to endure them with patience.

"I dare not ask for improved memory, but for a growing humility and a lessening cocksureness when my memory seems to clash with the memories of others. Teach me the glorious lesson that occasionally I may be mistaken.

"Keep me reasonably sweet; I do not want to be a saint—some of them are hard to live with—but a sour old person is one of the crowning works of the devil. Give me the ability to see good things in unexpected places and talents in unexpected people. Give me the grace to tell them so. Amen."

EASTERN STATES EXPOSITION

I'VE ALWAYS wondered how the folks responsible for the Eastern States Exposition manage to do such a good job each year. There seems to be a special "air" about it that retains much of the attraction of the fairs of yesteryear, and yet it's up-to-date.

The guard at the gate was unhurried and courteous, so refreshing in a world where frantic hurry seems to be the standing order of the day, where raucous noise fills the air, and courtesy is so often sacrificed on the altar of efficiency. Each New England state has its own building for its exhibits; having a chance to look them over is worth by itself a trip to West Springfield. Something of the essence of New England is inescapable in these buildings —its products, its people, and its philosophies.

Don Watson, boss man of the livestock barns, was his usual genial self even during the minor emergency of having two cows calving at the same time. No emergency about the calving, but people are just so interested in watching the launching of new life that animals have to be protected from their curiosity. Mothers, offspring, and spectators all ended up doing fine, though. Hopefully, next year will bring more barn room for livestock at Eastern States.

One of the most impressive sights was the FFA pageant, topped off by the naming of the Regional Star Farmer. Equally inspiring was the event honoring the principles and people of the 4-H. Who can measure the constructive impact of these organizations upon the young people of our nation?

New England has its own charm and character; may Eastern States continue to capture and transmit them to the folks who pass through its gates!

RED OR DEAD?

THE SCIENTISTS seem to be making cowards of us all. They scare us with words like "megaton," "fallout," and "annihilation."

We're numb to the impact of government budget figures; the statement that annual federal expenditures will hit $100,000,000,000 in a few years causes scarcely a tingle in our bombarded brains. But a yellow streak a foot wide seems to go up our backbone when we read that sixty million Americans might be killed in an atomic attack. "I'd rather be Red than dead," some say.

Regardless of the total number of casualties, remember that dying comes one at a time. Remember also that entire populations have been wiped out before. The Romans once killed every man, woman, and child in Carthage, burned the city to the ground, and sowed salt all over the soil so no life would rise again. Time passed, and the Vandals put the shoe on the other foot, killing the citizens of Rome and putting it to the torch. Each generation thinks it faces completely new problems, but the basic stuff of human living remains remarkably constant under the changing veneer of society.

A past generation in this country gathered in log forts when war whoops echoed across the hills, and they sometimes died to the last soul. Sitting in the air-conditioned security of a spacious office, some modern sociologists and theologians lament the chapters of our history that dispossessed the Indians. Indeed, some persons go farther and say piously that there is **nothing** worth a fight.

Where is the spirit of the embattled farmers who gathered at Concord? Where are the descendants of those men whose reeking Bowie knives wrote in blood their owners' obituaries upon the floor of the Alamo? What has happened to us that we seem ready to turn away from living merely because it may demand hard things of us?

GUEST EDITORIAL

RUSS PARKER, county agricultural agent in Livingston County, New York, sent me some words of wisdom recently. Sometimes I'm sure that many of our readers have more valuable things to say than ye editor. Anyway, here are some of Russ's comments:

"Commencement Day speakers usually tell members of graduating classes that they are now going out into the world to take positions of responsibility. They are told that they will be the future members of the boards of education, of the town boards, of the county governing bodies, and perhaps one may even be President of the United States. The future of our country is in their hands.

"Who can deny it? It's true. We were told the same thing.

"The part that isn't told—and is too seldom realized—is that **responsibilities have to be accepted.** Nor are they told that they will not be aware when this burden of responsibility is expected to be shifted to their shoulders. Nor are they told that only a very small percentage of them will ever accept any public responsibility that they can avoid. . . .

"Individual responsibility requires the understanding, the will, and the courage to stand — alone if need be—with honesty and justice. A system of individual responsibility offers the opportunity that encourages individual creativity and affords success for most, excellence for some—and failure for others.

"The present is in the hands of yesterday's 'generation of the future'!"

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AA's Farm Dollar Guide

FALL POTATO CROP FORECAST in September is 191,383,000 cwt., up from August forecast of 187,587,000 cwt. Increase is in Eastern and Central states; Far West is down slightly. At September forecast level, production would still be 6% below 1961 actual production, but 9% above the 1960 crop.

RECENT TRIALS ON SWINE at the Oklahoma Experiment Station show that pigs fed on concrete floors in confinement gain faster on less feed, have larger loin eye areas, higher dressing percentages, and a higher yield of primal cuts than pasture-fed pigs. But researchers point out that pasture pigs were sounder on their legs, had slightly less backfat, and produced slightly leaner and longer carcasses than those raised in confinement.

EARLY BREEDING OF HEIFERS is being studied by the Ohio Experiment Station. Several bred at 9 to 10 months recently calved. Holstein heifers averaged to weigh 1,007 pounds at calving; calves averaged 94 pounds at birth; heifers averaged 1,887 pounds of milk in first 60 days of lactation. Experiment is aimed at lowering cost of raising heifers.

U. S. WHEAT GROWERS approved marketing quotas for the 1963 crop by a 68.4% majority, the smallest ever. (Must be 2/3 favorable vote to carry). Four wheat states--Kansas, Oklahoma, Colorado, and Montana--voted "No." Growers can plant historic allotments up to national acreage of 55 million acres, with supports averaging $1.82 for those who comply. Wheat surplus likely to increase by as much as 25 million bushels by July 1, 1964!

AN INVENTORY OF YOUR HAY AND SILAGE is worth while. If short of roughage, plan now whether to buy hay or stretch it and feed more concentrates. When grain costs $60 a ton, you can afford to pay $36 a ton for top quality hay; half that for poor hay. With grain at $80, top quality hay is worth up to $45 a ton.

PRICE OF DAIRY COWS IS LOWER. Reports from New England, New York, and New Jersey say they are selling from 8 to 10 percent below last year.

THE NEW YORK AND NEW ENGLAND APPLE INSTITUTE reports that U. S. apple crop is about 4 million bushels below '61; that crop in eastern states is down about 5 million bushels; that sales effort will be the biggest ever.

The Song of the Lazy Farmer



I AM SO OLD I can recall when workers never ceased at all; the boss was a respected gent and ev'rything that he said went. Though hired men got smaller pay, they worked lots harder ev'ry day; they hardly ever disagreed when they were told what time to feed the hogs and hens or milk the cows, nor was it likely to arouse their dander if the boss said, "Now, today get going with the plow." In those days it was quite a crime to rest upon the boss's time, and no one yet had learned to scoff 'bout ev'ry other Sunday off.

Boy, times have sure changed, haven't they? It's getting harder ev'ry day to tell just who the boss might be, my sassy hired man or me. That guy's an independent bird, he argues with my ev'ry word; whate'er I tell him he should do, he takes his own time getting through. When he is in the mood he works, but half of ev'ry day he shirks; I never bother to complain 'cause if I did Mirandy Jane would quickly jump to his defense, and I am sure it don't make sense to argue with those two, by gee, they're both a whole lot bigger'n me.



BIGGEST BAG OF NITROGEN YOU CAN BUY

Inside this bag are 45 potent pounds of plant food. All 45 are pure nitrogen. All-set-to-*grow* nitrogen. The stuff that returns (let's be conservative) $2 for every dollar you invest—in *just one season.* Have you ever heard of a better investment?

This is AERO® Urea 45% nitrogen. It gets down to business right away, yet feeds through till harvest, pumping up yields all the way. That's AERO Urea nitrogen. Packed in the red, white and green bag, it's carefully made by American Cyanamid Company for easy spreading. It *flows*—as a fertilizer should!

Plow it down with crop residues. Put it under corn. Or, vegetables. *Spread* it on grain. Pastures. Forage crops. *Crops* need nitrogen like growing boys need food. *You* need AERO Urea forty-five per cent nitrogen . . . higher-analysis-than-any-other-solid nitrogen. Never settle for less. Why lug all those extra bags?

The bag in our picture is a 100-lb. bag. *Most* AERO Urea is sold in 80-lb. bags. Either one is the biggest bag of nitrogen in its class . . . and the best buy.

American Cyanamid Company, Agricultural Div., Princeton, N. J.

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45% NITROGEN FERTILIZER

CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

The Case Against Milk Supply Management

By G. M. BEAL*

Editor's Note: In the August issue of American Agriculturist, Chet Smith presented the case for supply management in dairy farming. Here is a summary of arguments on the other side of the fence.

I'VE BEEN concerned with the problem of milk production in relation to domestic requirements for many years and have discussed the subject on numerous occasions, but never before have I been authorized to consider only one side. Now, however, I am temporarily released from any obligation to be an objective analyst; I am free to function as the devil's advocate — or the angel's advocate—depending upon your point of view; and I am free to ignore all virtues of supply control and to magnify all vices.



G. M. BEAL

It Is Contrary to Traditional and Constitutional Guarantees of Maximum Economic Freedom to Individual American Citizens

As distinctly American as the public school system, where most of us began our education, were the traditions that our ancestors came to this new land in search of freedom of speech, freedom of the press, and freedom to worship according to the dictates of the individual conscience. But more careful reading of our history books in later years indicates that a great majority of our ancestors were equally if not more interested in the great expanse of free land available to them.

In the American colonies, John Locke's idea that God created the earth for the benefit of man, and that private property in land originates through the natural right of each man to the labor of his hands, fell in fertile soil, and flourished to a point unknown perhaps in any other nation. Coincidentally with the idea that a man was entitled to the land that he was willing to work as his private holding were two companion ideas of equal strength and persistence. One of these was that the role of government was essentially to protect the individual citizen's interest in private property against all encroachers both within and outside of the nation. The second was the idea that a man holding private ownership in land had the natural right to operate this property according to the dictates of his own judgment without interference from any other parties, including the government. These traditional concepts have been widely known and almost universally accepted by every generation of farmers in this country for 300 years.

Equally powerful is our traditional concept as American citizens that every man has a right to freedom of entry into the vocation of his choice. As an expression of this conviction among American citizens, we have all heard the custom followed by our pioneer ancestors of placing a hoe and the Bible in the middle of the room where the two-year old son could select agriculture or the ministry as his vocation. Certainly these ancestors of ours never conceived of any subsequent institutional prohibition against one of these selections predicated upon a particular history of "base period" activity. Similarly, the educational ideal of each generation has been to provide descendants with **greater opportunities for choice** than were afforded by the educational attainments of the current generation.

Furthermore, generations of Americans, most of whom were farmers, have been firmly convinced that the essence of individual opportunity and national progress lies in the **uninhibited operation of a free enterprise system** guaranteed by a democratic system of government, and protected against economic conspiracies contrary to the public welfare by anti-trust laws. Under this system, a freely competitive price mechanism automatically directs the use of capital and labor resources. **No individuals or groups in our society, however wise or good, are wise enough and good enough to exercise the power of economic choice over any other individual or group.**

It Is Contrary to the Economic Self-Interest of Every Individual Milk Producer

It is doubtful that any dairy farmer in the United States is currently supplying a large enough segment of his market to influence the price of milk by any change in his supply policy. This means that no **individual** dairy farmer, by producing less milk, can hope to prevent his price from declining as a result of the recently reduced support level. Each farmer knows that the price will be whatever it will be whether he produces half as much milk as he is now getting—or twice as much—in the coming months.

Therefore, an anticipated decrease in gross income from milk production (as a result of a lower price for any individual farmer) will only become greater if he reduces output. Consequently, unless it is more profitable to shift from milk production to another agricultural enterprise, or to another occupation other than agriculture, no dairy farmer has any **individual** economic incentive to follow a supply control program.

Farmers have demonstrated time and again that they will vote for acreage limitations and then make every effort to maintain or increase output on the smaller acreage. They have also opposed any kind of supply control which uses pounds, bushels, or tons as the basis for production quotas.

Farmers as a group **could** quite readily increase prices and gross income by reducing total output. But, since each **individual** farmer recognizes his inability to influence the price he will receive, and the general profitability common to any business of producing as much as possible with available labor and capital, he will not reduce output unless **forced** by law, or **rewarded** by government payments. Thus, there is a constant conflict of interest in the United States between farmers as a group and the same farmers as individuals.

It Inhibits the Adoption of Technological Improvement

The past two decades have witnessed the greatest technological revolution in agriculture in the United States ever previously observed in our history. According to one investigator, "Farm technological advances typically involved increased quantities of nonfarm resources, increased farm output, and lower cost per unit of output."

This combination of machinery, commercial fertilizers, weed killers, pesticides, feed additives, and other non-farm inputs resulted in an unprecedented outpouring of agricultural production. Further, it is generally estimated that a steadily increasing use of **known** technologies, without any new developments, will result in more than ample food and fiber supplies in this nation for the next fifteen years.

Dairy farmers have been sharing in the benefits of increasing technological efficiency in milk production. Furthermore, only a small proportion of the nation's dairy farmers are yet taking even partial advantage of these known methods for increasing output and reducing production costs per unit. Therefore, it is inevitable that any form of volume limitation on individual milk producers would slow up the trend toward production efficiency which would only partially be offset by quota or allotment transfers.

Certain limitations on transfers are inevitable, even though a new producer may be able to get in business (or an existing producer increase his output) by obtaining additional quota. This certainly will increase the cost of any attempt by a dairyman to "reach for" efficiencies associated with increased volume of production, perhaps even to the extent of making such an attempt entirely prohibitive.

Major Inequities Between Individual Producers Are Inevitable

Any nationwide, or even regionwide, program of supply adjustment is certain to create inequities between producers. No doubt every effort would be made to adopt uniform policies for all producers, but this kind of policy does not insure equity.

Possibly the most serious inequity would arise out of the practical necessity that a recent year be selected as a base period for determining marketing quotas for individual producers. This obligation would reward those who had contributed most to the surplus situation by rapidly increasing output prior to the base period. Conversely, it would tend to unjustifiably punish those who had contributed least to the necessity for supply control. Such a policy would be particularly burdensome to those who had devoted the base year chosen to preparation for increasing output by capital expenditures for a more economic unit in the form of buildings, facilities, and bred heifers.

The third difficulty in the same general area has to do with small dairy unit exemptions and local committee adjustment policies. A policy of no exemptions will mean a tremendous administrative burden, while having exemptions will create a great deal of controversy concerning the proper limit, and possibilities of evasion. Experiences of cooperatives with closed base plans in the depression of the 1930's clearly demonstrated the great difficulties and misunderstandings which developed from the handling of adjustment appeals. The "good bases," known to have been the possession of relatives of co-op managers and boards of directors, were remembered in their local communities long after these men passed away.

Wrong Medicine

Finally, the proposed cure is not a specific remedy for the apparent disease. During more than two decades, milk production has barely kept pace with our population trend in the United States. Meanwhile, per capita consumption has fallen steadily behind, and ultimately an absolute decline in total milk consumption occurred in 1961.

Thus, the major cause of economic illness in the dairy business is **falling demand,** while the proposed remedy is to **curtail supply.** Such a program would be an obvious concession by government and the milk industry that consumers cannot be induced to maintain per capita use at current price levels, so we must reduce sales; thereby forcing higher prices for less milk in order to stabilize the milk producer's gross income.

* Department of Agricultural Economics, University of Maryland



Alfalfa weevil (left) and spittlebug (right) can do enormous damage to forage. One dieldrin application before December 1st will control *both* pests next season.

URGENT:

You have only until December 1st to get near-perfect control of next year's alfalfa weevils and spittlebugs with just one insecticide application. Read how powerful dieldrin makes it possible.

TESTS and on-the-farm results prove that fall application of dieldrin gives you three benefits no other control method can offer:

1. Dieldrin controls *both* alfalfa weevil and spittlebug.

2. Dieldrin eliminates the expense of a separate spittlebug spray in the spring.

3. Fall application of dieldrin saves time and effort. You control insects when work load is low. You make your application when fields are dry —you avoid trying to pull spray equipment over fields made soggy by spring rains.

Stops infestations before they build up

Fall application of dieldrin kills alfalfa weevil and spittlebug adults before they can go into hibernation—*before* they've had a chance to lay their eggs.

RESULT: new generations that would ordinarily develop during late winter and early spring are virtually *wiped out before they get started.*

How fall application of dieldrin saves you money

Fall application of dieldrin saves you money two ways:

First: You do two jobs with one application. This saves you insecticide, time and labor.

Second: Dieldrin is so powerful that just one pound per acre is all it takes to do the job.

When to make your dieldrin application

Dieldrin can be applied anytime up to December 1st. Control is not affected by unfavorable weather conditions.

NOTE: Livestock should not graze on dieldrin-treated forage until the following spring.

Where to get dieldrin

Dieldrin is available from your local insecticide dealer under many well-known brand names. It comes as liquids, granules and in ready-made fertilizer mixes. Dieldrin formulations can be applied with standard air or ground equipment. Whichever formulation you choose, be sure to look for the name *dieldrin* on the label or in the ingredient statement.

Shell Chemical Company, Agricultural Chemicals Division, 2299 Vauxhall Road, Union, New Jersey.

GROWER REPORTS ON 3 YEARS' RESULTS



"Last year, for the third year in a row, we found that fall application of dieldrin gave us nearly perfect control of alfalfa weevil, spittlebug and other pests," reports Dean Snyder, Farm Manager, H. E. Millard Lime & Stone Co., Millarden Farms Division, Annville, Pennsylvania. "In fact, we have found that the one fall application of dieldrin is the only insecticide application we have to make on our 150 acres of alfalfa."

SHELL

dieldrin

A PRODUCT OF SHELL CHEMICAL COMPANY



CHRISTMAS TREES

Mr. Mouse likes Christmas trees for dinner, too, especially Scotch pine or Douglas fir. When the snow is deep and he cannot find grass, according to U. S. Conservation biologist James W. Caslick at Cornell University, "Mr. Mouse takes a look at the menu and decides to pass up his usual dish. Instead, he settles down at the base of a young conifer tree. The inner bark of this tree proves to be so tasty that he goes back again for a midnight snack, for breakfast, brunch, lunch, the three o'clock coffee break, and again for supper."

Mouse control methods and materials for Christmas tree plantations are similar to those used in fruit tree plantings.

Mouse Control In Orchards

By Isa Liddell

MEADOW MICE live in every sod orchard, and are a constant threat to the life and health of trees of all ages, causing annual damage of thousands of dollars. Pine mice are a special problem to growers in some areas of southeastern New York, as well as in New Jersey and Pennsylvania. Sometimes both species are present in a particular area.

The most common form of injury is trunk girdling at or near the ground surface. In some soils, meadow mice may burrow and damage roots in a way that cannot be seen, but which results in weak, unhealthy trees. Fortunately, such root damage is less frequent with meadow than with pine mice.

How To Discourage

Orchard management can have an important bearing on mouse damage. Young orchards that are thoroughly fall-cultivated will be relatively free from mice except where borders are grassy or weedy. In the older sod orchards, repeated mowing during the growing season will remove both food and cover, and expose the mice to their natural enemies.

Clearing vegetation in a four or five-foot circle at the base of the tree tends to keep the mice away from the trunk. Grass killers can be used — and the bare area covered with an inch or two of gravel and cinders.

Young trees can be protected by wire guards made from hardware cloth (6 or 8 mesh is best). A three foot width wire divided into two 18 inch strips, and then cut up into two foot chunks, is a convenient way to make the cylinders. The bottom of the guards should be firmly embedded in the soil around the crown of young trees—and should be rechecked and set each fall.

It is best to know the species present before planning control by baiting. If uncertain, set a number of snap mouse traps in various sections of the orchard. In the case of pine mice, it may be necessary to probe for their underground runways. But if both meadow and pine mice are present, poison baits in surface runways will kill both species.

Hand baiting does well for small orchards, but naturally costs too much and takes too much labor in large ones. In hand baiting, a limited number of baits (four to six around each tree—plus some extras "in the middle") are placed directly into the active runways of the mice. After placing the bait, push the vegetation over the spot. Bait the fence rows and orchard borders also, and all low meadows adjacent to the orchard.

The United States Fish and Wildlife Service recommends one-half to one inch apple chunks dusted with zinc phosphide, at the rate of 1 level teaspoon zinc phosphide rodenticide to 1 quart of apple cubes. Use poison packed in **yellow** containers, because that put up in red containers formerly used is now at least 6 years old, and thus ineffective.

Whenever apples are used for baiting, they must be prepared fresh daily. The apple chunks, which should be made from firm varieties, may also be dusted lightly with a finely powdered grade of arsenic trioxide.

Alternative

In freezing weather, or as an alternative bait, a teaspoon of poisoned grain could be placed in the runways. Studies have shown that meadow mice forage out from their runways and easily locate grain baits scattered thinly at random in the grass.

Zinc phosphide is extremely poisonous. Be sure you read the container label for precautions to observe in its use and the antidote for accidental human exposure to its lethal nature.

One exposure of bait, generally after harvesting in the fall, should give protection for one season, unless the fall is late. Baiting is most effective when done between 9:00 a.m. and 2:00 p.m. on a warm, bright day. If both meadow and pine mice are present, alternate the apple and grain bait in and between runways.

Inspect orchards carefully a week later, and if there is any evidence of mouse activity re-apply the poison. Orchard areas examined at harvest time which do not show signs of mouse activity should be carefully re-examined before freezing weather sets in. Definite mouse runways are established as cold weather approaches, and heavy populations may move into orchards, especially from low, poorly drained areas after a heavy rain.

Machine Distribution

Machine-distributed bait is prepared by combining 100 pounds coarsely cracked corn, 2 pounds zinc phosphide (commercial grade), 1 quart vegetable oil, and one half ounce methyl green dye.

Mix the dye with the dry zinc phosphide, then add the oil to form a thin paste or slurry. Pour this over the corn in a large metal tub, and use a hoe to mix the mass until each grain is evenly coated. Avoid breathing either dust or the fumes given off while mixing. A cement or tumbler mixer may be used for large amounts of bait. **Anything used for mixing must be used only for that purpose, or thoroughly scrubbed afterwards with soap and water.**

The prepared grain may be placed in sacks or other containers at once, and stored in a dry place until used, **well labeled.** It will keep for several months, but slowly weakens, so should not be retained from one year to the next.

Prepared cracked corn bait for machine baiting can be bought from commercial sources, and a zinc phosphide-oats bait for this purpose can be purchased from the U. S. Fish and Wildlife Service, New Brunswick, N. J., or from Rodent Control Fund, University of Massachusetts, Fernald Hall, Room 107, Amherst, Mass. The green dye and the black color of the zinc phosphide serve to disguise the grain, and to discourage wild birds from eating it.

One method of placing the cracked corn bait is to use a hand or tractor-mounted seeding device that will handle the grain. Drop the bait in a single line on either side of the tree row in the thickest grass along the drip-line. Garden seeder units or modified corn planters may be used. Adjust them to drop 8 to 10 grains per foot of row. Do not **plant** the bait. Three or four pounds of bait per acre should be enough with this method.

Another effective way is to bait a large orchard with a tractor-mounted whirling-disk-type fertilizer spreader. One trip on each tree row is enough for good coverage. This method may use 8 to 10 pounds of bait per acre, but the expense is offset by faster baiting. Results have been excellent in most orchards.

Airplanes may also be used to spread the bait quickly in large orchards. Custom-dusting airplanes with large hoppers can bait 200 to 300 acres in less than a day by making one pass over each tree row. In this case, 6 to 8 pounds of bait are sufficient. Costs range from $1.00 to about $2.50 per acre on machine baiting; hand baiting may cost four times as much.

Weather

Bad weather has a marked effect on the success of baiting. If the grass is wet with rain or heavy with dew when the bait is spread, or if heavy rains follow closely after baiting, the kill percentage drops. Water washes off the poison, and the mice are also less active.

Trail Builder

The orchard mouse trail builder is now perfected, and control of meadow mice obtained by this method is between 92 and 97 percent. Bait preparation is exactly the same as for use with the hand placement method

(Continued on Page 29)

SPECIAL WATCH OFFER FROM B.F.Goodrich



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Now's the time to put your farm on nylon, during our Time-To-Buy Nylon Tire Sale. You name the wheel—we've got the tire in stronger-than-steel nylon cord body, and priced to make it worth your while to buy *now*. Sale prices now on:

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. . . plus many other sale-priced buys.

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VISIT YOUR B.F.Goodrich FARM TIRE SERVICE CENTER TODAY!

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OGDENSBURG Fred Shurtleff's Inc., Cor. Washington & Catherine St.
OLEAN . B.F.Goodrich—John J. Otoka, 112 N. Barry St.
ONEONTA Hamm's Tire Center, 300 Main Street
PLATTSBURGH. . . W. W. Finney & Sons, Inc., 48 Riley St.
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SPRINGVILLE Lamb & Webster, Rt. 39 & 219 St.
WATERTOWN . K. O. Charlebois Tire Co., 465 Court Street
YORKSHIRE Herb Squire Equipment, Rt. 16

PENNSYLVANIA

CARLISLE Peterman Farm Equipment, Mounted Route, York Rd.
CHAMBERSBURG . Tri State Tire, 542 Lincoln Way, West
QUARRYVILLE Abel Brothers
SHAMOKIN. Crowl Tire Co., 36-38 Center St.
SHIPPENBURG. Tri State Tire, W. King St. Ext.
WAYNESBORO B.F.Goodrich Co., 78 W. Main St.
WILLIAMSPORT . . Bastian Tire Sales, Inc., 613 E. 3rd St.
YORK Nello Tire Company, 2700 East Market Street

VIRGINIA

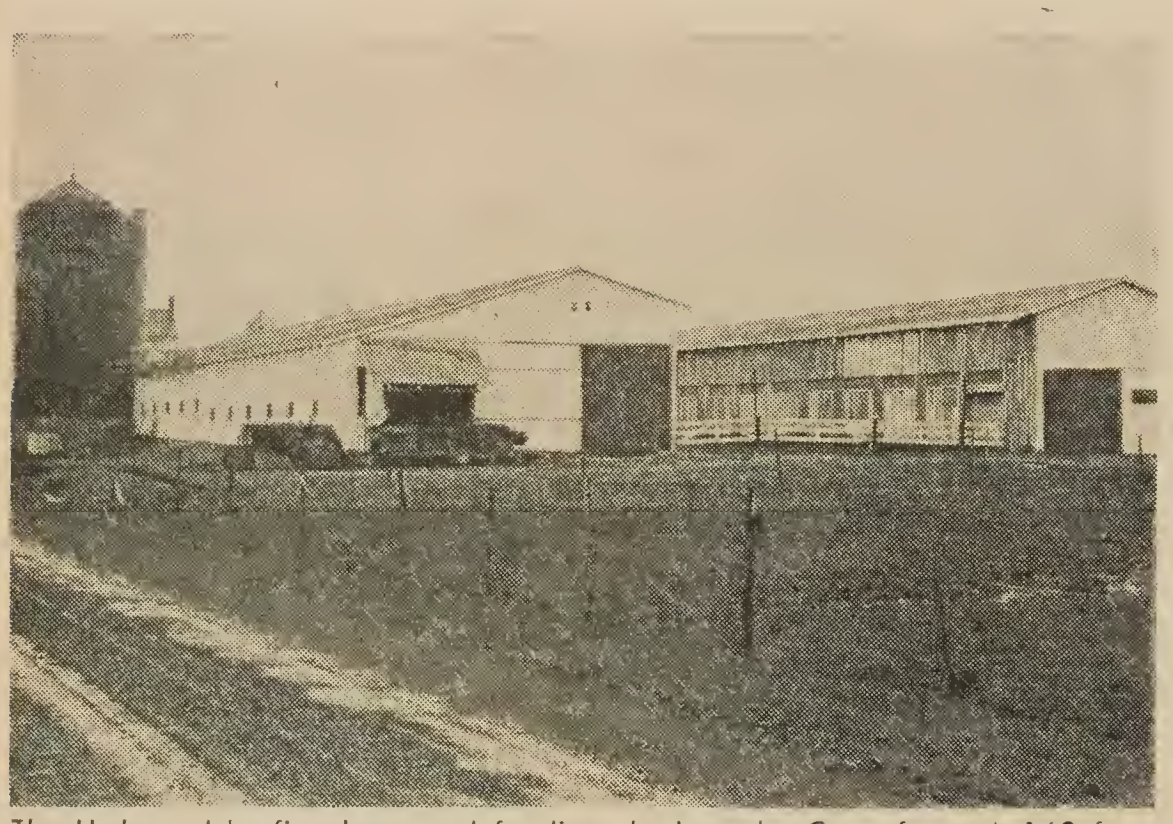
ALDIE Gordon Fletchers Store
BRANDY Compton Tractor Sales
FRONT ROYAL . Board Tire & Battery, Inc., 615 N. Royal Ave.
HARRISONBURG . Douglas Pearce, 50 South Mason Street
TASLEY. Guy Brothers, Route #13
WINCHESTER Valley Pike Tire & Battery, Inc., 24 West Hart St.

WEST VIRGINIA

CHARLESTOWN Clendening Tire Company, 111 South George Street



Mr. and Mrs. Cope review farm and herd records with Peter Hookes of the Federal Land Bank at Oneonta, N. Y. That DHIC book in front of Mrs. Cope records the herd average of 13,308 pounds per cow.



The U-shaped loafing barn and feeding shed on the Cope farm. A 169 foot conveyor belt and a 74 foot auger supply silage from the silo to the feeding shed at left.



The cows keep clean in the 4 x 8 foot free stalls at Lew-Arn-Hurst Farm. No feed is provided at the free stalls; the cows only rest and ruminate in them.

Progress Report On:

A Dairyman's Search for Better Housing, Cheaper Feed

By JAMES BODURTHA*

PEN STABLING lasted less than a decade at Lew-Arn-Hurst Farm in East Springfield, New York. Mr. and Mrs. Lewis Cope and son Arnold erected a 56 x 195-foot loafing shed in 1953; they converted it to free stalls in the fall of 1961.

"It was a most unsatisfactory set-up," 57-year-old Lewis Cope says. Even $1,200 worth a year of straw bedding, plus daily pick-up of droppings in loafing areas, did not keep the 100 head Holstein herd dry and clean. Cope was on the verge of installing stanchions in the big pole-type loafing barn.

But he read in farm magazines about success with free stalls for milking cows, and decided to try them. Using capital from cooperative farm credit, the Copes paved the loafing shed and installed concrete curbing for free stalls. With farm-produced timber they constructed 123 4 x 8-foot stalls, and sheathed in the east side of the shed.

Cope has found the free stalls vastly superior to the plain loafing area; he's convinced they also excel conventional stanchions. "We have cut bedding costs to almost nothing," he reports, "and are able to keep our cows as clean as in a conventional barn." Teat injuries, big knees, and swollen hocks are very rare.

SEPARATE FEEDING AREA

Cope's cows only rest and ruminate in the stalls; they get no feed there. They are fed silage and hay at mechanically supplied bunkers and at free choice racks in other wings of the barn. Grain is fed in the 12 stall milking parlor.

Free to roam, the cows spend about half the time in the free stalls. Unlike cows in stanchions, they do not regularly choose or command a particular stall; they take them as available, in more or less random selection.

Only occasionally do the Copes need to fork droppings from the 10 inch high free stalls. Most fall directly to the alleys, which are cleaned with a tractor-powered blade every day. The Copes push the manure up a ramp to a 225 bushel spreader. One load daily accommodates the approximately 100 head Lew-Arn-Hurst herd.

The free stalls are not paved, but filled with crushed stone, gravel and sand. The father-son partners add chopped hay for bedding once a week with a self-unloading wagon. Found virtually worthless as bedding in the loafing barn, the old hay is completely satisfactory in the free stalls, the Copes find.

The only criticism Lewis makes of the stalls is that the alleys behind them never get really dry. "I don't care for manure being nearly always present in the drives," he says, "but this is a minor shortcoming, and the only fault I can find in the free stall system. If we had it to do over again, we'd put in exactly what we've got now."

STEPS TO SUCCESS

Lewis and Myrtle Cope began farming on a 148 acre Otsego County hill farm just after they were married in 1928. Arnold was born in 1932, and in 1936 the Copes rented their present more level and productive place. They purchased it in 1939 with the aid of a Federal Land Bank loan. By 1940, they owned 25 cows and a fairly full line of farm machinery; in 1944, they placed the herd on DHIC test, and instituted artificial breeding. By the end of World War II the Cope herd numbered 38 milking cows.

In 1950, the Copes purchased an additional adjacent farm. Arnold joined the farm operation in 1952 after attending Cornell University. In 1953, the dairying family constructed the pole barn-milking parlor, put up two new silos, and purchased a silo unloader. The herd by then numbered 65 milking cows. In 1957, the Copes installed an 800 gallon bulk milk tank. By 1960, the Lew-Arn-Hurst herd numbered 135 head; today, there are 87 cows and 50 odd head of young stock.

In a period of United States history marked by national depression, war, agricultural revolution, and dairying cost-price squeeze, it took Lewis and Myrtle Cope less than twenty-five years to build the assets of an almost 100 cow farm business. In 1961, they sold 392,000 pounds of milk for each of the 3.3 workers credited to the farm.

REDUCING COSTS

Because purchase of concentrate grains takes nearly one-third of their milk check, Lewis and Arnold are making some changes. "We can't expect a higher price for milk," they believe, "so we've got to cut the cost of feed." They are convinced that they can reduce the annual grain bill to one-third by year-round feeding of haylage and high-moisture ear corn silage.

There is probably less risk of spoilage with 40 percent-moisture haylage

*Agricultural Consultant

(Continued on Page 29)

NEW 103 SPREADER



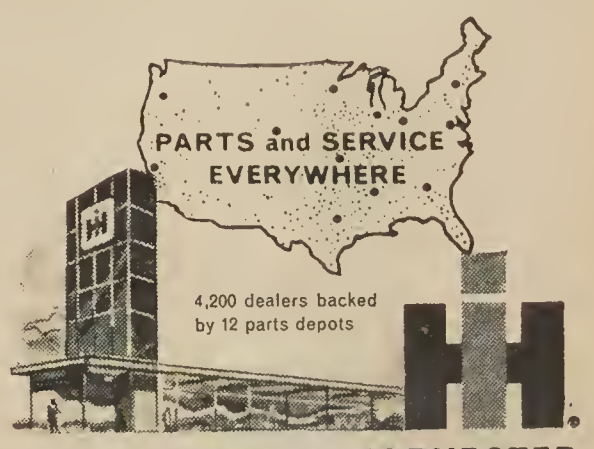
'BEAR CLAWS' shred finer spread wider

New low-cost 103 with exclusive Bear Claw beater outperforms other single-beater spreaders

Exclusive Bear Claw beater makes this new 100-bushel, single-beater spreader a match for most outfits with two beaters and a widespread. Ten thick-steel Bear Claws tear and shred the load . . . spread an extra-wide blanket 'way past the wheels. The new 103 has the strength to handle hard-packed manure. And it fine-shreds looser material to do a good job of topdressing wheat and alfalfa fields. The 103, with Bear Claw beater, has greater usefulness than other single-beater spreaders, but it costs no more!

Long-life V-belt drive is another "first" for single-beater spreaders. One heavy-duty V-belt replaces driveshafts, gears, and clutches. This reduces noise, vibration, and maintenance. Power from the tractor pto insures steady, uniform spreading in all field conditions.

Now, at your IH dealer! See the new single-beater 103, and five other all-new extra-duty spreaders, 75 to 150-bushel capacity.



INTERNATIONAL HARVESTER

World's largest manufacturer of farm equipment

By GORDON CONKLIN

An On-the-farm report:

Here's How They're Feeding Cattle



They're all interested in those beef cattle! Adults (l. to r.) are Willard Bell, Robert Bell, Mrs. William Bell, Boyd Bacon, and William Bell. Younger folks are Ricky (left) and Roy Bell.

THE REGION known as the Central Plain of New York State (west of Syracuse and north of the Southern Tier counties) is a grain surplus area. Blessed with generally deep and well-drained soils, this is a region that grows most crops well—a sort of northeastern "Corn Belt." Many farmers in the area believe that their grain can most profitably be marketed through livestock, including beef and swine.

Under the leadership of beef specialist Myron Lacy of Cornell University and county agricultural agents, tours are held each year in various parts of New York State for interested persons to visit cattlemen and "ask the man who owns one." Here are some things I saw recently in the Empire State's Wyoming, Livingston, Genesee, and Orleans Counties during such a tour.

Heavy Steers

Partners Boyd Bacon and William Bell of Perry were feeding 80 western steers shipped in from Colorado on last March 19. These steers came off the railroad averaging 713 pounds in weight, at a cost (including freight) of about 27¢ a pound.

Why such heavy feeders? Boyd replied to questions, "Feeders were scarce at the time we ordered and heavier ones were selling enough cheaper so we figured they were a good deal. Besides, we had a lot of corn silage to finish up and wanted a little heavier cattle."

A commission buyer in Colorado bought for Bill and Boyd after he knew what they wanted. Cattle received this year graded "good" to "choice" when delivered; none were lost during shipment. Antibiotics were included in their feed for 15 days after delivery and stilbestrol was fed during the finishing period for faster gains.

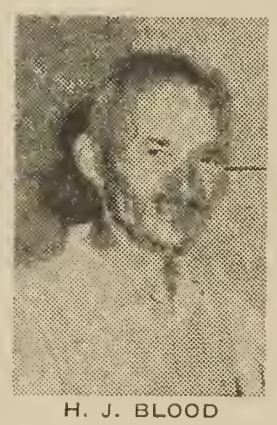
The fattening ration consisted of all the corn silage they would eat, free choice hay, and about 12 pounds of grain (cracked corn) per head per day. Building up to full feed took a while—from March 19 to the third week in June only corn silage and hay were fed. Then cracked corn feeding was begun, moving up gradually until the full feed level of 12 pounds was reached.

Since the hay fed was early-cut alfalfa, no extra protein was put in the ration until steers were on full feed, at which time a 32 percent protein supplement was added at about 2 pounds per head daily.

Bill and Boyd like to sell animals at a weight of 1,000-1,100 pounds, normally buy feeders at 500-700 pounds and split them among their three farms according to size. When it comes to marketing, Boyd says, "Don't try to 'fill' cattle with water and feed before taking them to market. Buyers get to know who does this and they adjust their bids more than enough to compensate for it." He added that the 80 steers in dry lot when we visited would move out to buyers over a period of a month after the first ones were sold.

High-Moisture Corn

H. J. Blood of Batavia uses high-moisture corn for feeding in dry lot, was feeding 90 cattle bought in Nebraska. The shipment came in averaging 480 pounds apiece, will be marketed at around 1,050 pounds. He uses a bunker silo for corn silage, stored 135 tons of high moisture corn (ears only) in an upright concrete stave 14'x40' silo. Mounted on his field chopper, a 2-row head snaps ears from corn stalks, runs grain and cob through a recut screen that leaves about half the kernels whole, the other half "busted."



H. J. BLOOD

He started cattle off on 6 to 8 pounds of high-moisture corn, moved them up to 30 pounds a day apiece on full feed. He reported that 3 inches a day have to be fed off the silo to prevent spoilage. "It's a real help to be able to pick corn at around 30 percent moisture when the weather is good," he reported, "at least two weeks ahead of when it would be right for cribbing."

He uses Aureomycin Crumbles whenever cattle "look droopy" or whenever stress conditions develop. Stilbestrol and vitamin A were being fed; he's read about problems of vitamin A utilization by cattle being fed corn from fields heavily fertilized with nitrogen.

Blood runs hogs behind his cattle, figuring that "30 to 40 hogs behind 90 head of feeders will get half their living from the corn that the cattle don't digest." Pigs started off at about 60-70 pounds in weight when first put in the dry lot. Myron Lacy commented that, on the average, 20 percent of whole corn fed to cattle goes through undigested, and already mentioned was the fact that about half of the kernels ensiled on this farm were whole corn.

Pasture and Grain

E. D. Mulligan of Avon was feeding out 64 head on a pasture-grain combination, has used this system since 1938. He admitted it takes longer to finish feeders this way than with dry-lot feeding, but it markets some pasture that might otherwise go to waste. Flies, particularly face flies, were obviously very troublesome to the cattle when we visited the farm.



E. D. MULLIGAN

Calves were wintered through on hay and corn silage plus a few pounds of ground oats per head. Pasture took over in the summer, and in July Mulligan started feeding 2 pounds of whole oats per head daily, moved slowly up in pounds and also added more corn. By the end of 10 days, he had each of them eating about 15 pounds of corn daily and then began letting them have grain (including a protein supplement) free choice.

He's not using stilbestrol this year, has used implants in steers previously. He cautioned not to feed this hormone to both steers and heifers because the heifers tend to get too fat (known as "gobby" in the trade) and may develop an udder that causes buyers to think they are pregnant—meaning a lower price.

Virginia Cattle

Ken Noble, son Jack, and son-in-law Tom Perkins of Linwood were dry-lot feeding 200 steers bought at several feeder calf sales in Virginia. They were also feeding corn silage and a protein supplement with stilbestrol added. Ground ear corn, plus the supplement, was fed free choice.

Ken likes to buy feeder calves at 350-550 pounds in weight, believes there is more risk in buying heavier feeders. He prefers buying one breeder's calves if possible because of greater uniformity in growth rates and performance, but admitted this isn't often possible when buying large numbers.

Jack Moran, manager of Empire Marketing Cooperative's Caledonia sales yards, commented during our visit to Noblehurst Farms that cattle should be taken off feed the night before they are sold. He backed up Boyd Bacon by saying, "Fill costs you money, because the buyer knocks down the price too far when he sees it."

Ken is planning to raise some Holstein steers this fall as an experiment.

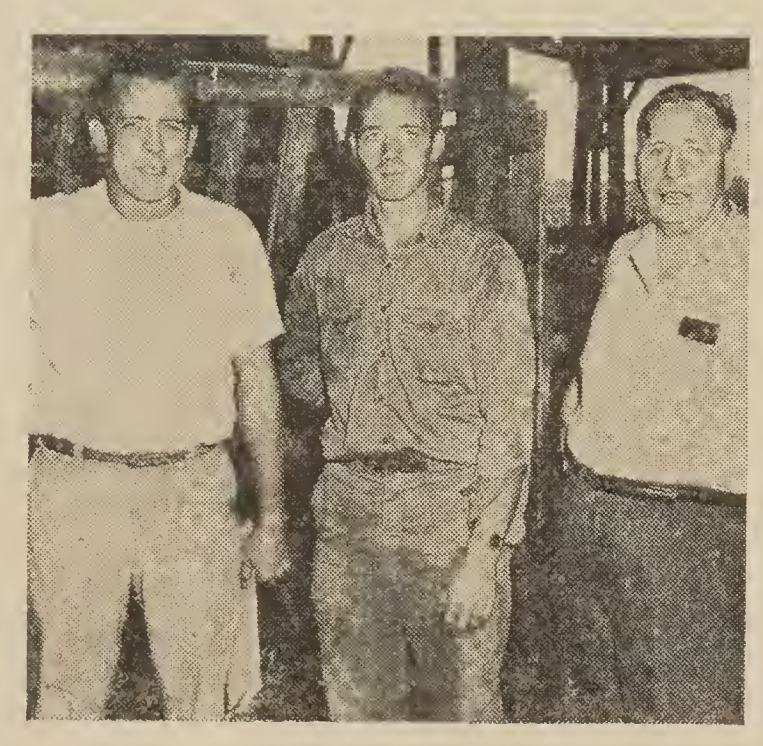
Feeding Heifers

Our next stop was at the 265 acre farm of Carl House near Caledonia, where 80 beef cattle are in dry lot, 45 more on pasture. The ones on pasture were bought at 600-800 pounds in weight and will be carried on pasture until October, then finished out in dry lot over a 60-day feeding period.

Carl once had a 40-cow brood herd, but sold it. As he put it, "We fed too much corn silage for roughage and the cows stayed too fat. We figured it was more profitable for us to feed out cattle than to raise calves from a cow herd."

Carl is feeding one bunch of heifers. Commenting on them, Myron Lacy told the group, "Heifers should go to market at lighter weights than steers—around 800-900 pounds. There is less flexibility with heifers be-

(Continued on Page 33)



All very much involved in the operation of Noblehurst Farms, Inc. are (l. to r.) Tom Perkins, Jack Noble, and Kenneth Noble.



Mr. Donald E. Brown, dairyman, of Newport, Vermont.



"Foot rot and bacterial scours have all but disappeared from our herd since we started feeding AUREOMYCIN."

"AUREOMYCIN RETURNS US ALMOST $15.00 FOR EVERY DOLLAR WE SPEND FOR IT"

Says this Vermont dairyman: "Improved management, including the use of Aureomycin, has increased herd health and allowed us to cut expenses all along the line."

"AUREOMYCIN® fed to our dairy cows gives us a tremendous gain on our investment. We're enthusiastic about it and we recommend it highly."

This statement comes from Donald Brown who owns a dairy farm on RFD 3 Newport, Vt.

"Foot rot," says Mr. Brown, "used to be one of our worst problems during the season of heaviest rainfall. We usually had at least four cows down with it at the same time. It was not uncommon for production in these cows to drop off by at least one-third — and treatment was costly. With AUREOMYCIN in the feed, foot rot has just about disappeared from our herd.

"Bacterial scours, too, used to take its toll before we fed AUREOMYCIN. In the winter before we first fed this antibiotic, the entire herd was afflicted with a severe outbreak. Milk production fell off almost overnight to one-half its normal volume."

Aureomycin changes picture

Mr. Brown sums up: "AUREOMYCIN has completely changed the picture by controlling these two diseases and that, in turn, has increased our milk production. In 1959, the last year before we used AUREOMYCIN, milk production averaged 8,000 pounds yearly per cow and the per-head butterfat average was 365 pounds. Current milk production averages 11,664 pounds yearly per cow and butterfat is up to 467 pounds."

See your feedman

AUREOMYCIN in feed "has changed the picture" and cut expenses for *many* New England dairymen. It can do the same for you. By preventing and controlling diseases such as foot rot, bacterial scours and respiratory disease, AUREOMYCIN helps keep more healthy cows in the milking line, producing up to potential.

Your feed manufacturer or feed dealer can supply you with feeds containing AUREOMYCIN. Talk to him. Make sure you have AUREOMYCIN in your dairy feed *this* winter! American Cyanamid Company, Agricultural Division, Princeton, N. J. *®AUREOMYCIN is American Cyanamid Company's trademark for chlortetracycline.*

CYANAMID

AUREOMYCIN
IN DAIRY FEEDS

CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

MERCK

CATTLE HEALTH BULLETIN

CALF SCOURS IN YOUR HERD? THIS KILLER CAN BE LICKED!

This acute, highly infectious and deadly disease of young calves is characterized by profuse, watery, light-colored bowel movements. Several bacteria, including *Escherichia coli,* organisms of the *Salmonella* group, and a virus *(Myagawanella bovis)* have been incriminated as possible causes of infection.

Some outbreaks of scours occur (in the presence of one or more of these infective agents) as a result of the lowering of the calf's resistance. This may be due to one or more factors, such as improper disinfection of the umbilical cord at birth, failure to supply an adequate feeding of colostrum or first milk, poor diets or faulty feeding habits, deficiency of vitamins A and D in the dam's diet, sudden changes in the weather, and undue exposure to cold, drafts or unsanitary quarters.

Affected calves, weakened by the persistent scouring and dehydration, are particularly susceptible to fatal outbreaks of pneumonia. Recovered animals are sometimes unthrifty in appearance and are slow in making normal weight gains.

TREATMENT WITH SULFASTREP HELPS CUT LOSSES

The TREATMENT of scours can be effectively carried out with SULFASTREP® *Boluses. These boluses contain three hard-hitting drugs with a wide range of antibacterial activity. Two of these drugs . . .* SULFATHALIDINE® *and streptomycin . . . go to work in the gut itself where they are most needed. The third drug, sulfamethazine, gets into the bloodstream to help check infections that "spill over" into the circulatory system.* SULFASTREP *also contains kaolin to adsorb bacterial toxins and provide a protective coating for the intestinal tract to help shorten recovery time.*

DON'T LET SCOURS GET STARTED

Sanitation, warmth and proper feeding are key factors in *preventing* outbreaks. Disinfect the navel with tincture of iodine at time of birth. Make sure the calf has an adequate supply of colostrum for at least 24 hours after birth. Try to avoid overfeeding or exposure to cold, drafts and sudden temperature changes.

Give 1-2 SULFASTREP Boluses *to calves daily for 3 to 5 days after birth. Extra Vitamin A and D Mixture, a Merck product, may be fed to cows during the last three months of gestation.*

NOTE: For best results with SULFASTREP *and other Merck Animal Health Products, consult a veterinarian for diagnosis and advice before administering.*

Merck Chemical Division, Merck & Co., Inc., Rahway, New Jersey.



By HAROLD HAWLEY

Gayway Farm Notes

A LOOK WESTWARD AT FARMING

A RIDE OF a couple thousand miles from central New York to west central Wyoming serves to impress one all over again with the tremendous productive capacity of American agriculture. Let no one forget that, missiles and nuclear subs notwithstanding, our ability to produce food and fiber stands as one of the chief deterrents to the Communists. And one might even say we aren't even half trying—what with soil bank and feed grain programs, etc.

It seemed on our trip that every time we were about ready to generalize that "this is a strictly cash grain area" or "a livestock feeding section," suddenly the soil or topography would change and the type of farming would, of course, also change. As a result of trial and error (and thousands of individual decisions) farmers and ranchers are doing what seems best for them under their particular circumstances.

I couldn't help reflecting on the absurdity of a recent statement by Walter Reuther as reported in the New York Times. He said: "Only a moron would believe that the millions of private economic decisions being made independently of each other will somehow harmonize in the end and bring us out where we want to be." His statement completely disregards the fact that our vigorous, prosperous, and productive agriculture and industrial society came about just that way.

Road Fill

Traveling through the Buckeye State we got an idea for a situation where a road contractor wants fill for a new highway. Along the Ohio Turnpike, the fill was taken from regular-shaped areas deep enough to leave nice, big, attractive ponds. This is certainly better than skimming off a layer from a bigger area and then leaving a scarred, useless patch, as has so often happened.

The open dry winter of 1961-62 surely resulted in more volunteer corn than I can remember. One field of oats at home gave us a hard time as the nubbins on the volunteer corn smashed up and came through with the oats. The Corn Belt farmers also have lots of problems coming up with the volunteer corn in their soybeans.

We were again impressed by the number of sodded strips left in some of the rolling Iowa cornfields when the land was plowed. This is out "where the tall corn grows," and it's evident they want to hold the soil so they can continue to grow good corn. Not too long ago these rolling fields had washes and gullies in them. It's a good practice some of us might use.

There's not much doubt that Northeastern farmers are taking better care of their pastures than many Midwestern hog and cattle men. We saw all too many pastures yielding poorly because of weeds and more weeds. They are doing less rotating and clipping than we are.

Automatic Feeding

The Midwest dairyman has stolen a leaf from the cattle feeder and is using bunks and augurs to feed his cows their silage in the barn lots. Of course, there is some of that done in the Northeast, but not nearly as much. The only thing that bothered me was the mud, and the consequent condition of the cows' udders when they came in to be milked.

In terms of labor requirements this appeals to me—but I am equally convinced that a paved area is needed around the feed bunks. In fact, our experience with hay racks in the lane or pastures pretty well demonstrates that a paved or gravelled area would be a big help—at least during rainy spells.

Each time we would see the combination truck racks we would wonder why they never have caught on in the East. The sides to a height of about 4 feet are grain tight; slatted racks are hinged to the top of the grain sides so that the truck can be used for hauling cattle simply by folding up the slatted part. This makes a 6 foot high rack. When not needed, the slatted part merely swings down on the outside of the truck. These are a commercially-made outfit (Omaha Standard); certainly many of our trucks would be more useful simply by the addition of the hinged tops!

We have always been intrigued by the haying methods in north central Nebraska. This is an area pretty much devoted to hay—both native prairie hay and alfalfa. It's mostly raked up with dump rakes—2 or 3 rakes (10 or 12 foot models) behind a tractor—and then pushed up to a stacker with a buckrake. The stacker drops it into a round form (perhaps 12 to 14 feet across). Later, the stacks are winched onto a flatbed hay sled and hauled as is to the road, or where needed.

A new gimmick this year was a tandem mower so one man and one tractor cut two swaths as they went along. This involved a long hitch and a really long power take-off shaft for the second mower. This might bother on our New York hills, but we plan to check into it anyway.

The right-of-way maintenance crews in Nebraska were speeding up their jobs with a belly-mounted sickle bar mower cutting one swath and a pto rotary mower pulled by the same tractor cutting another swath.

The Chanticleer

The real nostalgic touch of the whole trip came the morning we were awakened near Dubuque, Iowa, by the crowing of several roosters. How long has it been since you were beckoned out to "rise and shine" by a rooster? Years and years for us, and the experience sure took us back to childhood days when almost every farm in our area had its flock of poultry, including a few lusty-lunged old red roosters. Guess the farm flock is another casualty of the trend toward specialization. Maybe this is for the better, as I seem to recall eggs of questionable vintage and quality coming from some of the nests that were discovered several days after some family-minded old biddy had "stolen" her nest.

Hats off to Manchester, Iowa! Here they surely must rear youngsters with character. How can they miss? The main four corners features the intersection of **Backbone Street** and **Independence Avenue.** This should be a better environment for the youngsters than in a town a little farther west, one of whose "watering places" featured the sign, "Duck Inn and Wobble Out."

We got a jolt when we saw a fellow combining oats out in western Nebraska (irrigated) at 6 a.m.! With few or no cows to milk and no moisture to worry about, there was nothing to keep him from starting as soon as daylight came. Likewise, wheat ground was being plowed and fitted before breakfast.

An interesting sidelight was the added incentive to go along with wheat and corn acreage reduction programs the farther west one went. As rainfall decreases, there seems to be a definite advantage in summer fallowing. In fact, a part of some of these farms in western Nebraska and eastern Wyoming (so-called dryland farming areas) are usually summer-fallowed to help build up moisture. Now, these programs not only pay for not growing wheat or corn on this land, but by so doing help to build up the yield the following year. No wonder they participate!

Some of the farm co-ops and others out through the West have built up a tremendous amount of storage space to hold government grain. They are worried that if the government stocks are reduced their storage facilities will be partly empty. This will lead to cutthroat competition to get grain to store, further reducing the income of the co-ops. Would you like to hazard a guess as to what they might be hinting to their congressmen? Just another illustration of the pressure to continue an unsound program to protect vested interests!

WHAT IS A BUNCH?

Sunday at the lake a school of fish suddenly started surface feeding right near the shore where we were eating and sunning. Question is — why a **school** of fish? Why not a flock—as with sheep or poultry? Or a herd—as with cows or buffalo? Or perhaps a band—as with wild horses?

Might it not even be a pack—as with wolves or Boy Scouts? A covey is all right for a bunch of quail; why not for fish? Admittedly a hive or a swarm of bees seems to fit, but maybe only because it is familiar. How about a cluster of bees or fish or a gang of goats? Could be, couldn't it?

We talk about a crew of workmen or sometimes a work gang. When you get started on these collective nouns, there seems to be no end. Of course, there is a compilation of figures, a sheaf of papers, and a clutch of eggs.

My all-time favorite is a gaggle of geese. What's yours?

10 different light-duty chassis—39 pickup models to handle all kinds of farm jobs

That's right – there are 10 basic light-duty chassis in the INTERNATIONAL Truck line. And that doesn't include the SCOUT®.

In the pickup field alone this builds up to 39 different models. Remember, INTERNATIONAL gives you two pickup body styles, standard and Bonus-Load, in three different lengths – 6-ft., 7-ft. and 8½-ft. And only INTERNATIONAL has the 6-passenger TRAVELETTE® cab.

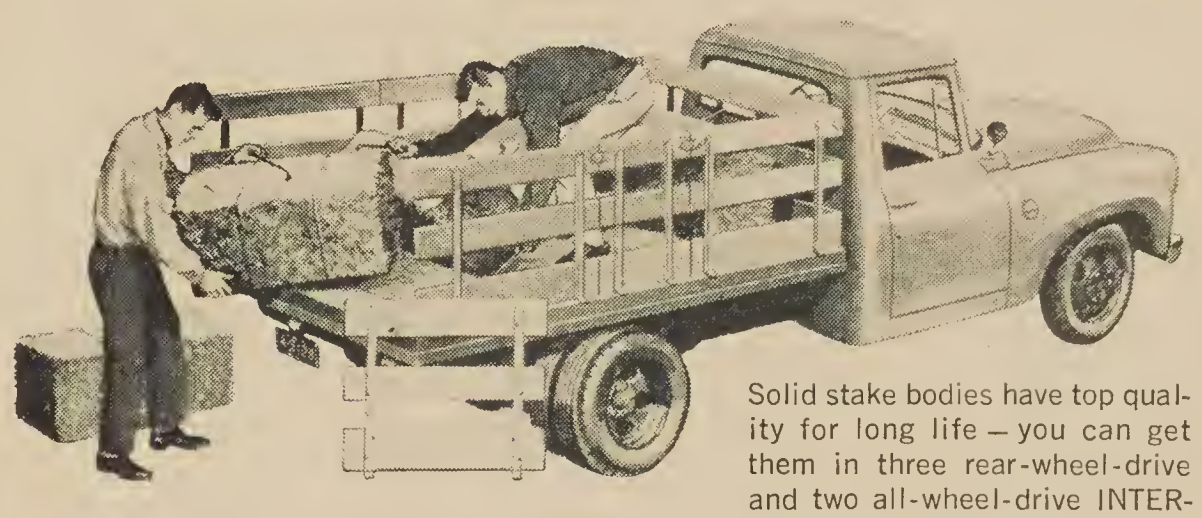
These trucks have more all the way through because you can fit out INTERNATIONAL chassis with stake, platform, flatbed and other special purpose bodies all the way up to 9-ft. in length. There's not a farm hauling job that an INTERNATIONAL light-duty truck can't handle.

The power that you can get is another great story – a choice of six engines, V-8's or 6's, gas or LPG. And if you're thinking of all-wheel-drive traction, then you owe it to yourself to find out about all that INTERNATIONAL offers in both the 7,000 and 10,000 lbs. GVW range.

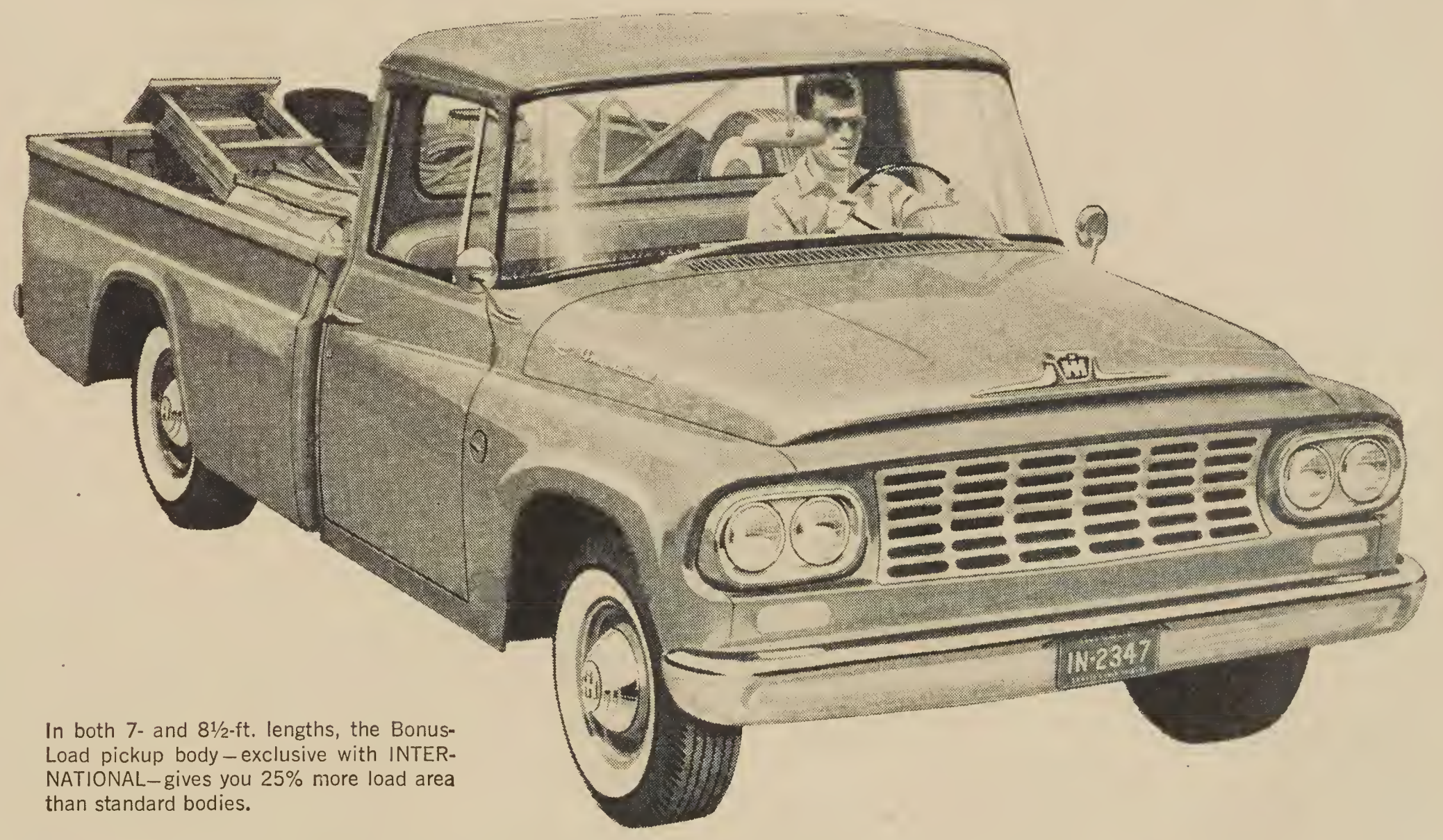
Pick out the right model with the right power at your nearby INTERNATIONAL Truck Dealer or Branch—where there's a size and type for any job on your place! International Harvester Company, 180 N. Michigan Ave., Chicago 1, Illinois.



One way to handle more farm truck work – put all-wheel-drive traction together with an 8- or 9-ft. platform body.



Solid stake bodies have top quality for long life – you can get them in three rear-wheel-drive and two all-wheel-drive INTERNATIONAL Series.



In both 7- and 8½-ft. lengths, the Bonus-Load pickup body – exclusive with INTERNATIONAL – gives you 25% more load area than standard bodies.

INTERNATIONAL® TRUCKS

WORLD'S MOST COMPLETE LINE



Two Essential Harvesting Tools!!

Your clock and radio are two essential harvesting tools. from the day the first field of early-cut hay is mowed in unpredictable May. through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P. M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Salamanca	WGGO	1590 kc.
Boonville	WBRV	900 kc.	Saratoga Springs	WSPN	900 kc.
Dunkirk	WDOE	1410 kc.	Sayre, Pa.	WATS	960 kc.
Elmira	WENY	1230 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Scranton, Pa.	WEJL	630 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Walton	WDLA	1270 kc.
Olean	WHDL	1450 kc.			
Rochester	WHEC	1460 kc.			

Northeast Radio Network

GLF Quality

Brought to you at 7:15 A.M. by the Cooperative G.L.F. Exchange, Inc.



Thomas E. Milliman of Ithaca, N. Y., former director of research for the G.L.F. and former contributor to American Agriculturist, receives the Medallion Award of the American Grassland Council from J. B. Washko of Penn State, chairman of the Council's board of directors. The award is given annually to the member who has contributed the most to the progress of grassland farming.

NEWS and VIEWS from New York and Pennsylvania

Town Roads —A bill was introduced in the last New York State Legislature by County of Delaware Assemblyman Edward A. Mason and State Senator E. Ogden Bush, to have 10 percent of the State's motor fuel tax allocated for maintenance of town roads. The bill died in committee, but officials of the town of Meredith, Delaware County, including Supervisor Earl Briggs, Highway Superintendent Walter Holloway, and Justice of the Peace Cy Schoonmaker are continuing the campaign locally.

It is pointed out that even the Erwin Plan roads, **once they are completed,** become the responsibility of the towns for upkeep.

Awards — Agricultural College staff members have been much in the headlines recently. At the annual meeting of the American Veterinary Medical Association, Dr. William A. Hagan, professor emeritus of veterinary bacteriology at Cornell, received the 1962 Award for his contributions to the advancement of veterinary medicine. Dr. Hagan is now director of the new National Animal Disease Laboratory near Ames, Iowa.

Professor Alvin A. Johnson, Director of Extension at Cornell and professor of plant breeding, was presented the 1962 Achievement Award in Agronomic Education at a banquet attended by 2,000 crops and soil scientists from the United States, Canada and other countries. He was cited as "a provocative thinker, and a major contributor of new ideas in many areas of extension and research."

At the same banquet, Dr. Howard B. Sprague, head of the agronomy department at Pennsylvania State University, was elected vice president of the American Society of Agronomy, as was also Dr. Nyle C. Brady, agronomy department head at Cornell.

Council — The Eastern Grape Growers Council, Inc. has recently been organized by growers from Ohio, Michigan, New York, and Pennsylvania. Among others, objectives include attempts to consolidate efforts of all producers of eastern-type grapes, eliminate duplication of processing and marketing costs, and establishing a uniform method of sampling grapes sold on a sugar solids basis.

Deceased —Two outstanding personalities in the farm field have died recently. On August 26, Leo G. Klein, a key figure in the work with apple breeding at the New York State Agricultural Experiment Station at Geneva, died while working in his garden. At East Aurora, N. Y. died Leon A. Piquet, immediate past president of the Holstein-Friesian Association of America, and nationally prominent farm and business leader. Mr. Piquet developed one of the world's top herds of Holsteins at his Noel Farms.

Wilt — This year, New York State muskmelon growers have been plagued with a disease called "sudden wilt." The name comes from the rapid development of the symptoms on plants which seem perfectly healthy. County agents and growers are cooperating with Dr. Arden F. Sherf of Cornell's College of Agriculture in his efforts to determine the cause of this disease.

Leads — Suffolk County leads the state in plant and tree nurseries with 385. Nassau and Monroe Counties are tied for second, each with 222. Nurseries have increased in number slightly more than 25 percent in New York State in the past 12 months, with 2,872 nurseries operating over the State.

TROPHY—Thomas Giles (right) Scottsville, N. Y. receives the C. Hadley Smith trophy from its donor after being named Grand Champion Showman at the 12th Annual NYABC Cattle Show in August.



Empire and Keystone States

Outstanding Young Farmer — Named by the Junior Chamber of Commerce for New York State this year is William Underwood, Little York, who is in partnership with his father, Harry Underwood. In conjunction with their dairy farm, the Underwoods run a profitable fruit and vegetable stand. Bill was chosen because of his fine farming record, and also because (although handicapped from the results of a serious hip injury he incurred a few years ago) he manages to find extra time to work with probation officials on the problems of youthful offenders. He and his wife have five children, he is a 4-H Club leader, active in the Holstein Club, president of the Cortland County Fair Association, Extension Service committeeman, and active in his church. Congratulations, Bill!

Fourth of July Club — Sponsored by the National Bank and Trust Company, Norwich, N. Y., and the Chenango County Extension Service, a special recognition luncheon was held September 12. More than 200 farmers from the county were honored for finishing their first cutting of hay prior to July 4.

Competitors — In the running for the Regional FFA "Star State Farmer" award for 1962 were: Harry Hodge, Woodbury, Conn.; Paul Schreppler, Camden-Wyoming, Delaware; Brian Young, Bucksport, Maine; Ronald M. Wessel, Glenelg, Maryland; Russell Roberts, South Deerfield, Massachusetts; Joseph Perrigo, Weare, New Hampshire; James Hill, Sussex, New Jersey; Floyd Dubbens, Cherry Valley, New York; Eugene Gantz, Millersburg, Pennsylvania; David Henry, Scituate, Rhode Island; and Andrew Ward, Danville, Vermont. The coveted Award went to Eugene Gantz (18) of Millersburg, Pennsylvania, at a colorful ceremony before hundreds of spectators during the Eastern States Exposition. Present were 300 Future Farmers of America members from 12 states, the West Springfield (Massachusetts) High School Band, and the announcement of the winner was made by Governor John H. Reed of Maine, himself a former FFA member.

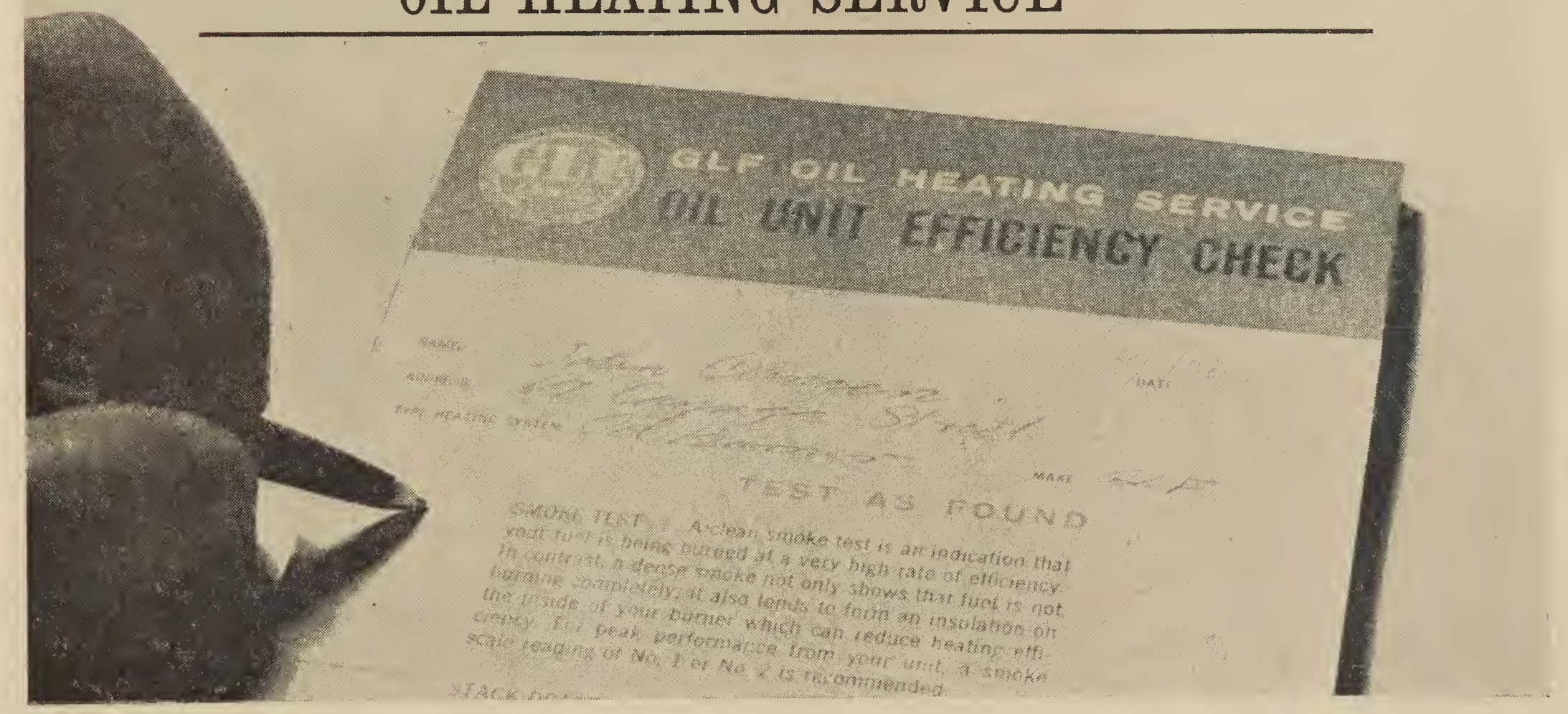
Distinguished — Three New York State county agricultural agents were recently selected for distinguished service awards by the National Association of County Agricultural Agents. They are: H. Ira Blixt, Cortland County; Norman J. Smith, Nassau County associate agent; and Paul E. Turner, Monroe County associate agent.

Band Contest — At the New York State Exposition, Holley Central and Mexico Academy school bands (New York) tied for first place. Sherburne Central was second; Aquinas Institute of Rochester, third.

THE GLF MAN IS HERE



TO GIVE YOU FAST, COMPLETE
OIL HEATING SERVICE



Tired of excuses instead of burner service? Call GLF. *Our* customers are all set for the winter ahead. We've serviced them by the thousands *before* the heating season started. And listen to this: they've received the finest service that money can buy. No delays. No guess-work. We *know* how your burner will perform before we leave your house because we check every inch of your system with carefully calibrated scientific instruments. We can even *predict* the efficiency of your burner and hit it right on the button.



Don't put up with delayed service or slip-shod work. Call GLF and get the job done *right* from flue pipe to fan blades and filter. We'll do the job right because every GLF burner expert is a graduate of the Boston School of Advanced Oil Heating. They take pride in their work . . . and you will too. Call us today for *immediate* service.

Personal Farm Experience

Forage Program

THE FIGURES indicate that relatively little fertilizer is used on meadows or pastures. We think it pays, though, and follow the practice of top-dressing immediately after the first cutting of alfalfa with 250-300 pounds of 0-15-30; the dealer spreads it for us.


RICHARD CALL

We have no permanent pasture; the cows are fed silage the year around. First-cutting alfalfa is put into the silo to be fed during the summer, and then the silos are refilled with corn.

We keep alfalfa down as long as we can, usually about five years. We do pasture rye in the fall, and again in the spring. Rye is planted following the harvest of peas or snap beans.

We put the cows on rye three or four weeks in the fall, and two to three weeks in the spring, beginning around April 25, and they clean it up pretty good so there isn't a lot to plow under. — *Richard Call, My-T Acres, Inc., Batavia, N. Y.*

Orchard Herbicides

In 1959, we applied amino triazole around 700 mature Delicious and Cortland apple trees. Poison ivy had become a real problem, but the herbicide killed it and none has reappeared since.

In 1960 we tried some Dowpon on trees 3 to 8 years old, at 10 pounds per 100 gallons of water. It did the job on grass, but did damage some 5-year-old Rome trees. No permanent damage occurred, though, and these trees were normal the next year.

In 1961 we used orchard herbicides on 60 acres, mostly around young trees. We experimented with 5 different combinations and concentrations around trees ranging in age from 2 to 20 years. On bearing trees, we used two combinations: Dowpon at 7 lbs. with 13 lbs. of Simazine, or 7 lbs. of Dowpon plus 3 lbs. of Karmex. Both combinations seemed to do the job equally well.

On non-bearing trees, Amitrol T at 4 quarts plus Simazine at 5 lbs. worked very well on trees 4 years and older. On 2-year-old trees, we went in with a mixture of 2 quarts of Amitrol T and 3 lbs. of Simazine per 100 gallons. No tree injury was observed with either mixture, but the lower strength application took twice as long to kill the grass.

After struggling for awhile to work out application rates on a per acre basis, we gave up and just tried to wet down the grass and weeds to the drip stage without soaking the soil. We have gravel around trees in circles six feet in diameter; spraying is done from edge of gravel out to what can be reached by the mower. The orchards are also mowed so vegetative growth is controlled between tree rows.

In 1962, we applied a combination of Simazine and Dowpon, at various concentrations, between May 5 and 7. As far as timing goes, we try to fit herbicide application into the schedule of other work and get it on as early as we can after grass and weeds are well started. All trees on our 225 acres of apples were treated this year.

Equipment has included a 10 G.P.M. pump drawing from a 50 gallon drum mounted on a tractor, and delivering to two pistol-type guns. Two men on the guns and one driving the tractor could spray 2 rows at a time. Pressure used was about 45 pounds. For 1963 we're planning to go to a boom sprayer in order to save labor. Instead of two men on the guns plus a tractor operator, only one operator would be needed.

Our observation is that treated trees are much thriftier than the untreated and I believe that the use of orchard herbicides will become standard practice. Mouse control should also be better in treated blocks of trees. — *Arthur Kurtz, Sanford Orchards, New Paltz, N. Y.*

Good Investment

Two years ago I purchased rubber mats for bedding, and believe it was probably one of the best investments I have made on the farm. I have 62 mats, costing $1,900, and they were installed by the seller.

Before I bought the mats I purchased straw and sawdust, costing me $70 per month in the winter. In spite of the deep bedding I used, I had cows with stepped-on teats, sometimes as many as 6 or 8 in a winter. Some of this trouble was due to the short beds, three to four foot centers between cows, and no partitions between them. Also, one reason —and probably the most important —that influenced me to get mats was that the beds in my barn were very slippery due to the cement wearing down smooth, and the small stones in the cement were showing, which made it very hard for the cows to stand up, especially when they were let out and in.

The mats were easy to install and no cutting was needed in my barn. I first tried them without trainers. This was drastic. The cows would get very dirty, and it became a problem to keep the mats clean. When I installed the trainers the cows were

(Continued on Opposite Page)

$1,527

HIGHER INCOME for herds switched to BEACON Dairy Feed Programming



More than 3300 cows in 82 herds prove it! Herds switched to Beacon increased milk and fat production, averaged $1527 greater income over grain cost right off—in just 12 months. Read about this summary of DHIA records and what it can mean to you.

How can you increase income from your herd? One way is by changing over to BEACON DAIRY FEED PROGRAMMING.

Why?

Because BEACON DAIRY FEED PROGRAMMING helps cows increase performance year after year. It is a program of *precision feeding* to bring out fully each cow's inherited capacity for milk and profit.

For proof, here are summaries of actual DHIA records for 3300 cows throughout the Northeast.

Results show that the typical cow switched to Beacon produced 978 lbs. more milk and 39 lbs. more fat, for an increased income over grain cost of $1527.00 per herd!

BEACON DAIRY FEED PROGRAMMING
Results from 82 DHIA herds

	Pre-Beacon	First Year on Programming
Total cows	3,340	3,388
Ave. per cow:		
Milk (lbs.)	11,384	12,362
Butterfat (lbs.)	425	464
Grain fed (lbs.)	3,450	3,719
Grain cost	$142	$156
Income over grain cost*	$421	$458

*Same price of milk used for both years.
Many other herds are also benefiting from the program, but the report is restricted to those where testing data are available to us.

These increases are just for the first 12 months. Herds on the program for two years *again increased the second year.*

Has every herd that switched to Beacon achieved an increase right off, the first year? No. *But 9 out of 10 have.*

Call in your Beacon Advisor

He is highly trained and widely experienced in putting the 4 steps in BEACON DAIRY FEED PROGRAMMING to work for you. Based on past results, chances are 9 out of 10 he can help you step up net income right away—the very first year. Why not call him today?

BEACON FEEDS

Beacon Division of Textron · Cayuga, N.Y.

GOOD INVESTMENT

(Continued from Opposite Page)

kept clean, and the mats were also dry and clean. I use a bushel of sawdust per 24 cows, putting it toward the back of the mat—and if the cow does manure on the mat it is easier to clean. This is done every day, winter and summer.

When the cows are let out the mats are swept thoroughly and new sawdust is put on. The sawdust costs me around $15 a month and I pay $40 monthly for the mats. This figures less than straw and bedding, and I am getting much more for my money with the mats. I haven't had a stepped-on teat since I bought them. Many people coming to the farm still cannot understand why, but I believe most cows step on their own teats slipping on the bed either getting up or down. I have seen this happen many times.

I know the cows like the mats because when they are let in they will try to get on them as quickly as possible. New heifers coming into the herd never have a hard time getting into the stanchions, whereas before they would slip on the concrete, making them afraid to come into the barn. I haven't noticed any bruises on the cows, although last winter two of them did have swollen hocks, probably from lying on the hard rubber. This wasn't serious, and the hocks didn't get worse.

The effect of the mats on milk production and mastitis would be difficult to estimate because of the many factors involved, but I do believe most of my mastitis trouble came from stepped-on teats, which certainly the mats have eliminated. I think the biggest effect on cows so far as comfort is the confidence they have in knowing they won't slip and hurt themselves. This alone certainly helps milk production.

The disadvantage with the mats is the care they take. The inspector likes to see them clean, so they must be swept after the cows are let out. Any manure sticks, and is almost impossible to get off if not done soon after. The sawdust is used mainly to help keep the mats clean and facilitate the sweeping of them. The mats have a urine groove, which I think would be better eliminated. The grooves make them hard to sweep, especially if manure gets in. I understand that in Holland the mats come in a section for five cows; this would be a lot better, with fewer cracks between mats. Sawdust gets in the cracks and makes the mats hump up, making it necessary to clean under them.

I have found it necessary to put old hay or something in the drop to keep the cows cleaner. This year I plan to try tying the cows' tails so that they won't get them in the drop which would eliminate some of the hay needed. But some hay is needed to help the barn cleaner operate efficiently.

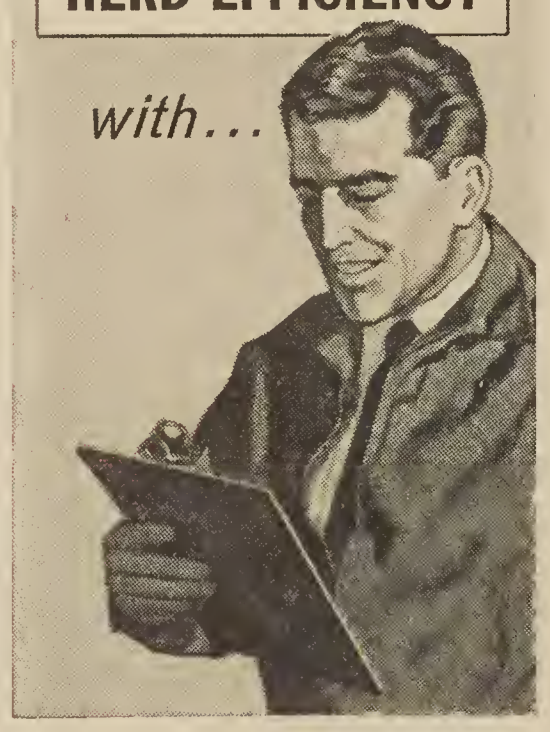
I have had some trouble with screws coming out of the mats. I understand they are using a plastic screw or cap now, which is said to work better.

The mats are guaranteed for ten years, and if they last that long I'll get my money out of them. I have noticed, however, where one mat is wearing on the back, I think because this particular cow seems to keep her back feet on the edge of the mat.—*Parker P. Scoville, Goshen, N. Y.*

Increase your

HERD EFFICIENCY

with...



the help of your

BEACON ADVISOR

For higher herd efficiency, use BEACON FEED PROGRAMMING to bring out each cow's full inherited capacity for milk. Beacon Feed Programming helps you stop costly overfeeding of low producers and underfeeding of high producers by discarding old-fashioned fixed grain-to-milk ratios. Instead you use precision feeding to get full potential from your cows...from your roughage...from your investment.

First Step: Roughage Analysis

Ask your Beacon Advisor to program your herd. As a first step, he sends a sample of your roughage to the Beacon Laboratory. An accurate nutrient analysis helps him select the correct, most economical grain protein level. The Beacon Advisor then works closely with you to program feed for every cow. He uses the Beacon-developed Grain Feeding Tables which take into account differences in roughage quality, body weight, milk production, butterfat. Together, you bring each cow to new high levels of performance and profit.

Call in your Beacon Advisor

You'll find him a widely experienced professional deeply interested in the business of dairying. He helps you program each cow regularly to feed out all the milk right up to inherited capacity–for higher herd efficiency and greater returns over feed cost. Call your Beacon Advisor today.

BEACON FEEDS

Oat Experience

We have consistently raised oats for grain, and we have tried them for silage. We prefer them for grain even though we sometimes find it difficult, weatherwise, to get them sowed in April.

One of our objections to oat silage was a strong and penetrating odor; we found it advisable to feed the silage after milking—resulting in less efficient use of labor. Another feature we disliked was the short duration of best harvesting time for silage. Dollar wise, as grain the oats greatly cut the cost of our feed, plus the fact that the straw was available for bedding. At the present time we plan to utilize the oats for grain, as in the past.

We have used a number of different varieties of oats, but usually return to the old standby, Garry. In 1961, we planted Garry and experienced a condition that was fairly common in our area: the crop yield looked extremely favorable — good high stand, large full heads — then for no apparent reason whole fields started to lodge just before harvesting. This occurred during a period of relatively little rain, hot weather, no wind. We have heard since that a fungus infection of the stem may have been the causative agent.

We have tried in the past a mixture of wheat, oats and barley in place of oats. We felt that this combination gave us the best result as far as weight per bushel returns was concerned. Whether we use this combination or not depends upon cost of seed compared to estimated yield.

Our oats are planted on Lima silt loam, fairly well drained, tiled and of high lime content. We wonder if the lodging we experienced in 1961 could have been due to the high amount of nitrogen that we plowed down with our corn. Considering this possibility, we fertilized with 0-20-20 at 350-400 pounds per acre. Last year we sprayed with MCP herbicide and found it quite effective.

With the steady and predicted decline of milk prices we, like most other farmers, are going to increase production in all lines in order to compensate for the lower milk prices and the higher price of feed, machinery and higher taxes.

—*Robert Bellinger, Vernon, N. Y.*

Vegetable Storage

We have storage for all the potatoes and onions we grow. We feel that this is very important, in fact, we wouldn't grow these crops if we had to sell them from the field.

I'd like to make one thing clear, this storage is not a gambling proposition. By that I mean we don't hold the entire crop in hopes of getting a better price. We couldn't do it if we wanted to, for one reason because we have customers and must supply them with potatoes and onions when they want them.



Chuck Angello

About 25 percent are graded and packed in 50 pound bags. But the pressure by buyers has been for smaller bags—5 pounds, 2 pounds, and in some cases even as low as two onions in a bag.

We figure on cleaning out the onions by April 1, but we sell potatoes into late June.—*Chuck Angello, Elba, N. Y.*

Rotary Cutter

The rotary cutter is the most perfect implement on the market for making hay. It cuts, crimps, and windrows at speeds 5 to 8 miles an hour. This is the third year we have used a rotary cutter; have cut 60 acres of alfalfa twice—will be cut three more times. We make up to 300 tons of hay per year.

Rotary cutters for making hay are not closed tight—some have a side plate that lifts to let hay out, some have rear and back side open. We have both kinds in use. The hay is cut once and bruised and left in a light fluffy windrow for quick curing. We never made as good hay as we do now.—*A. Wolfe, Brandywine, Md.*

here's double trouble for calf scours

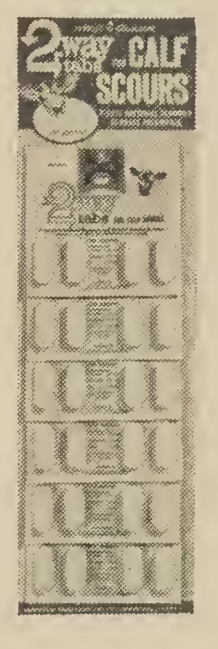


SULFATHIAZOLE STREPTOMYCIN

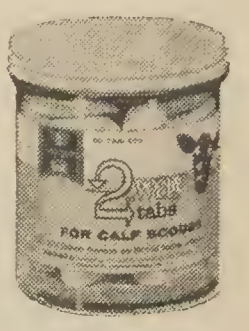
helps you win the fight against calf scours and pneumonia... one tab fights both infections at the same time

Every year calf raisers take a big loss from scours and pneumonia through stunted, weak or dead calves.

2-Way Tabs contain the combination of two powerful drugs... Sulfathiazole and Streptomycin... in high levels. Sulfathiazole halts infection in the intestinal tract and in the blood stream. Streptomycin, the powerful antibiotic, fights a large variety of disease organisms. Another ingredient is Kaolin... soothes irritated intestinal lining besides removing toxins from the body. All three...in one 2-Way Tab.



Look for this Tab Card Display at your Hess & Clark animal health dealer. 4 Tabs treat one calf...the low cost way to fight scours and pneumonia.



For economy... buy the 50 Tab supply in the new plastic jar.

T-3-t

HESS & CLARK
ASHLAND, OHIO
Division of Richardson-Merrell Inc.

Before the Chain Saws Sing

TREE FARMING can mean many things — better soil conservation, watershed protection, better hunting and fishing—but, best of all, it can be a fine investment for you and your children.

It takes about 10,000 board feet of lumber to build an average two-bedroom home, and foresters estimate that an acre of managed red and white pine trees should produce about 50,000 board feet by the time it is 75 years old; and good lumber can be grown on land that is useless for other purposes.

Think of your woodlot as a wood-producing factory that should have a sustained production. As with everything in nature, there is a definite time for harvesting. Cutting too soon may reduce returns for the future; cutting too late may result in reduced returns because of slower growth and dying trees.

If you have made up your mind to sell some of your timber, then the first thing to do is to investigate all local timber requirements — find out from the buyers of stumpage (standing trees), logs, pulpwood, and other forest products the prices they are offering. Then compare these prices with those quoted from other sections of your state. And don't omit to talk it over with your neighbors—find out what they have learned from recent timber-selling.

Invitations to inspect and bid on the timber should be sent to as many buyers as possible. The greater the value of your product, the farther a buyer will travel to look it over.

Timber buyers consider trees merchantable when they measure 12 inches in diameter at breast height (4½ feet from the ground). But this isn't the whole story. For example, veneer logs are at a premium—and well-formed trees of a good species like oak, ash, hard maple, yellow poplar, or cherry should be in excess of 20 inches in diameter breast high before being cut.

Before advertising the timber sale, either the areas in which the trees are to be cut should be clearly defined by painted boundary lines, or the individual trees to be cut should be clearly paint-marked.

Prices for forest products fluctuate considerably according to demand. If you need money badly, you'll be tempted to take the first good offer you get. But, remember that the timber buyer makes a living buying and selling timber, and don't take his first offer unless you are hard pressed.

It is possible to estimate the timber in your woodlot yourself, and there are helpful bulletins on the subject, such as the USDA Farmers' Bulletin No. 2187, entitled "Managing the Family Forest," and one put out by Cornell University entitled "Measuring Trees and Logs."

This latter bulletin can be obtained in New York State from county agricultural agents, or direct from the Mailing Room, College of Agriculture, Cornell University, Ithaca, N. Y. The address for the U. S. Department of Agriculture is Washington 25, D. C. Wherever you live, your State College of Agriculture will be able to provide you with material on the subject.

But unless you are an expert, it will surely pay you to get some technical advice. In some states (New Hampshire, for example) there are foresters in each county who will examine your woodlot and help in marking trees for cutting, at the same time advising about marketing them. The State Forester, (who is usually located in the State capital city) employs technically-trained service or farm foresters to provide on-the-ground assistance to family forest owners in managing their woodlands. In some states, a nominal fee is charged for estimating and marketing timber.

If your forest holdings are large enough so you can contract with firms for the sale of the products, industrial foresters are sometimes available to provide marking services—employed principally by pulp and paper companies, pulpwood dealers, forestry associations, and large sawmill companies. Names and addresses can usually be secured from local county agents or farm foresters. Check also with local Soil Conservation Service Technicians.

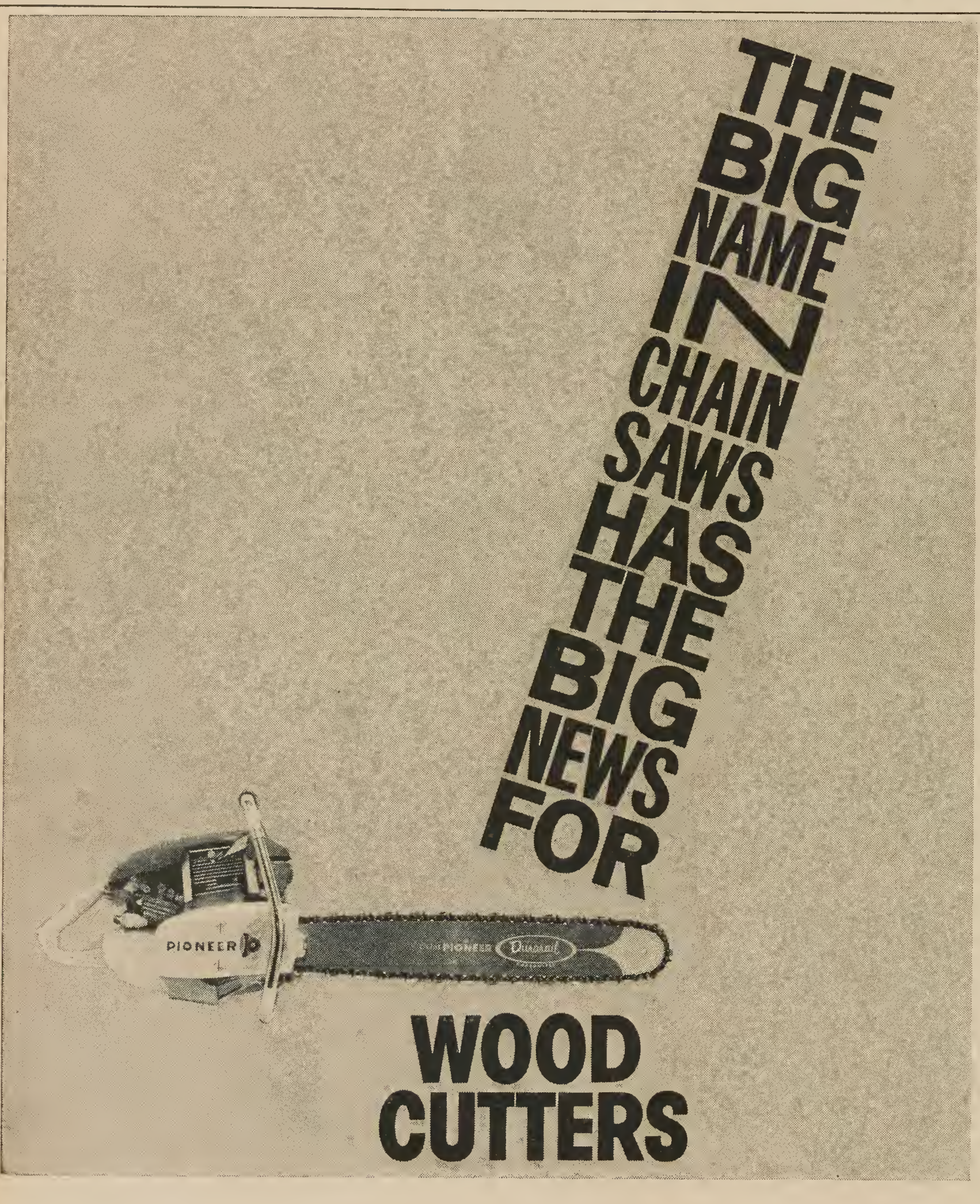
Consulting foresters are self-employed and provide services for a fee covering all forestry problems.

Contracts

The help of a forester is invaluable, too, in preparing a contract for the sale of forest products. Timber purchasers often use standard forms (there's a copy of one in the USDA bulletin mentioned), but no standard contract for selling stumpage adequately covers all circumstances.

The contract should include every item that may be subject to question during the operation. Only a person experienced in timber sales can possibly know what these items are. If you want your lawyer to handle the legal end of the contract, that's fine —but have a forester list the important items that should be included.

And don't forget to consider the integrity, experience and reputation of the buyer. If possible, examine tracts recently cut by the top bidders to see what type of work they do. The "top dollar" for trees may be costly in terms of damage to future crops. Workmen are sometimes careless in skidding and felling, and damage is done to standing young trees which cuts down their value for the future.



You'll never know how fast and easy woodcutting can be until you've used the Pioneer Super 6-20. It's the saw with all the features professionals asked for. For instance: silver-plated bearing cages for the smoothest action of any chain saw engine...lightweight magnesium alloy housing for all-day handling ease...full-power cutting at any angle...and a full line of Durarail match-mated bars and Duracut match-mated chains. That's only part of the story. Your Pioneer dealer can give you complete details about the full line of Pioneer direct and gear drive saws, built to save time and work on every woodcutting job. And he'll arrange for a free demonstration.

PIONEER CHAIN SAWS | *a product of Outboard Marine Corporation, Waukegan, Illinois*

The Genie and the Genes

REMEMBER Aladdin and his magic lamp? He rubbed it and, presto, a genie rose on a column of smoke to do his bidding.

We used to think that was a pretty fanciful story, but truth is often stranger than fiction. Who among us even ten years ago would have believed in a magic lamp that would hold 1,200 bulls—all at 320 degrees below zero? The inseminator can ask his magic lamp for a bull of whatever breed and bloodlines he wants, and the genie delivers the genes. Progress—it's wonderful!

The liquid nitrogen freezing concept of artificial breeding service is of top interest among everyone connected with artificial insemination of cattle. Some companies, like Curtiss Candy and the American Breeders Service, (ABS was first to use the method), have been using it for some years.

The New York Artificial Breeders Cooperative at Ithaca will start a new program, combining liquid and frozen semen distribution, this fall. Because the demand for semen of AB proved Holstein bulls in regular use is often greater than the supply, this semen will continue to be available in liquid form six days per week. (Freezing semen requires greater sperm numbers, and could reduce the use of these top Holstein bulls from 40 to 60 percent.) Semen from all other sires will be frozen and stored in liquid nitrogen.

Other States

The New England Selective Breeding Association, with headquarters at Woodbridge, Connecticut, changed over to an entire frozen semen program in May of this year. In Pennsylvania, some of the breeding cooperatives are converting wholly or in part to a frozen semen program. The New Hampshire-Vermont Breeding Association is not yet ready to convert, and will continue to conduct business on a liquid semen program; and at the Maine Breeding Association the future use of liquid nitrogen frozen semen is still under study. By and large, however, it seems evident that this method will predominate before long.

Pros and Cons

Liquid nitrogen was selected as the refrigerant in the new type of semen distribution program because of its superiority over dry ice and alcohol; there is little danger of temperature fluctuation during storage. The frozen semen is distributed to technician-managers in custom-built semi-trailer trucks.

Among the advantages claimed for the liquid nitrogen process are: an opportunity for herd improvement through greater use of AB proved sires; fewer problems of breeding back closely-related animals because of greater choice of sires; the fact that with liquid nitrogen there is little danger of fluctuation in temperature during storage; better conception — and thus fewer services per cow; less danger of damage in mailing semen; and uniformity of quality.

On the other hand, some cooperatives with only a small number of cows being bred feel that they can continue to render good service with liquid semen; they feel that the volume of business does not warrant the increased costs of a frozen semen program. One cooperative pointed out that there are certain sires whose semen will not stand freezing.

Semen is reported to be completely useable after eight years of being frozen at the extremely low temperature of 320 degrees below. Bulls can be used after they are long dead — in fact, no one knows for sure yet just how long nitrogen frozen semen will be usable—quite likely for a longer period than tests so far have proved.

And so it goes. There's just no stopping those genies—or genes! It is said that there's nothing new under the sun—but there are certainly new applications of old principles coming along all of the time to add to the interest of living.

LOW COMPRESSION — VALVES OR RINGS?

Every farm mechanic is aware of the fact that low compression readings are an indication of either valve or ring trouble. But did you know there's an easy way to determine whether it's the rings or the valves that are causing the trouble?

When low compression readings are observed on the gauge, a good way to determine whether the trouble lies in the rings or valves is to squirt about a teaspoonful of heavy oil into the combustion chambers of the affected cylinders. Then crank the engine several times to distribute the oil and repeat the compression test.

If the trouble is in the rings, there will be a marked increase in compression, since the oil will temporarily seal any leakage past the rings. If approximately the same readings are obtained, the rings are okay and the valves are leaking.

Keep in mind that before testing compression the engine should be brought to normal operating temperature. During the compression check, both the throttle plates and choke valve must be wide open, and all plugs should be removed.

If during the test the pressure fails to climb steadily and remains the same for the first several strokes, but then climbs higher on succeeding strokes, a sticky valve may be causing the trouble.

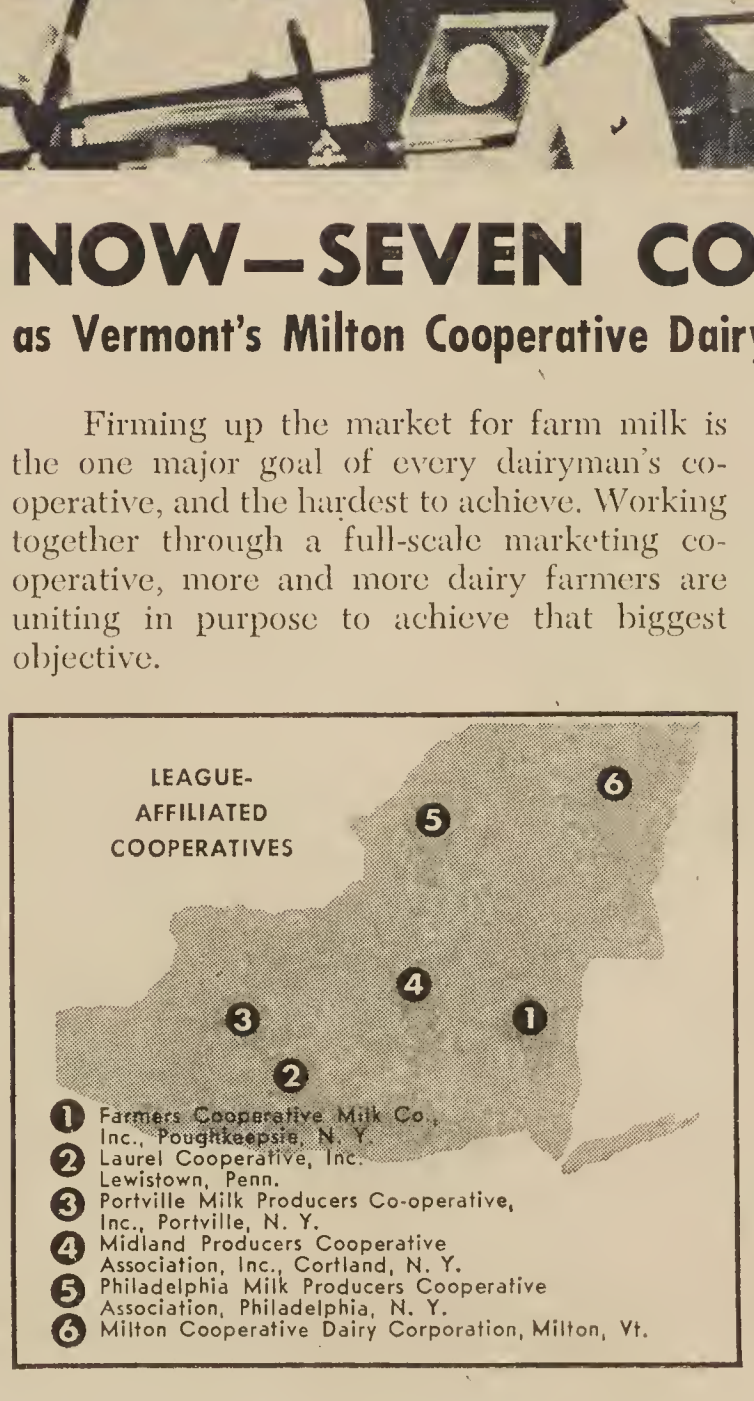


Strength through unity: Affiliation agreement is signed by Milton Cooperative president Raymond Rowley (seated right) after signing by League president Glenn Talbott. Witnessing event are Victor O. Parizo, manager of membership, and James R. Donnan, executive committee member, both of Dairymen's League.

NOW—SEVEN CO-OPS, ONE GOAL

as Vermont's Milton Cooperative Dairy Corporation affiliates with the League

Firming up the market for farm milk is the one major goal of every dairyman's cooperative, and the hardest to achieve. Working together through a full-scale marketing cooperative, more and more dairy farmers are uniting in purpose to achieve that biggest objective.



The Milton Dairy Cooperative Dairy Corporation, with 400 members selling into the Boston market, operates its own manufacturing plant and two country receiving plants. It's a marketing co-op with interests identical to those of Dairymen's League members, though with operations centered in a market adjacent to the New York Milkshed.

Affiliation with the League was a logical, beneficial move for both cooperatives.

In this now-official relationship, the Vermont organization in August joined six others with membership on the League's Affiliated Board of Directors.

If your co-op is concerned with ways to be more effective, perhaps you too could find an answer by exploring affiliate membership advantages with a League representative. As a start, call your nearby division office of

THE DAIRYMEN'S LEAGUE
COOPERATIVE ASSOCIATION, INC.



IS the grass ever greener?

When economic going gets tough for dairymen, all kinds of self-serving splinter groups spring up advocating radical ideas and programs and promising "greener pastures" for all.

Your Bargaining Agency has proven through 26 years experience that the BEST programs and the "greenest pastures" for dairymen come when they join and support established dairy cooperatives they own and control—cooperatives like those which are a part of

METROPOLITAN COOPERATIVE MILK PRODUCERS BARGAINING AGENCY, INC.

527 S. Warren St., Syracuse 2, N. Y. Phone HA 2-0186

MOVE AHEAD with a Cooperative Association of Milk Producers—94 cooperatives representing 22,000 producers—united for improved milk marketing.

NEW from BARN·O·MATIC new SUPREME CHAIN

Extra Heavy Duty Forged Chain for added years of life



A barn cleaner is only as good as its chain and Barn-O-Matic engineers have designed the *New* SUPREME chain that gives it ⅓ more weight . . . 35% longer life. You get added years of trouble-free operation because this chain has been "beefed up" at the points of greatest wear.

Barn-O-Matic forged steel linkage is made in two sizes—(1) *New* SUPREME Heavy Duty for larger barns, and (2) Heavy Duty Super for small to medium size barns. If you're thinking about a barn cleaner, think about the one that's now built even better to last even longer. See us or write for full information.

SEND COUPON TO NEAREST DISTRIBUTOR:

CHARLES ADAMS, 118 East Main St., Avon, New York
NEW IDEA FARM EQUIPMENT CO., 400 Pulaski St., Syracuse, New York

BARN·O·MATIC INC.®
NEW LONDON WISCONSIN

PRODUCTS OF Avco CORPORATION

PLEASE SEND ME MORE INFORMATION ON:

☐ BARN CLEANERS ☐ SILO UNLOADERS
☐ FLOATING AUGER FEEDERS

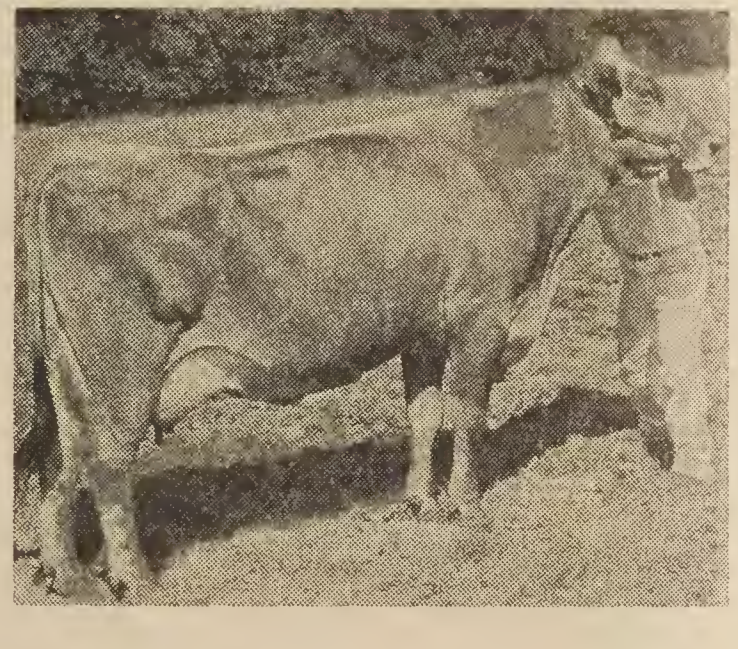
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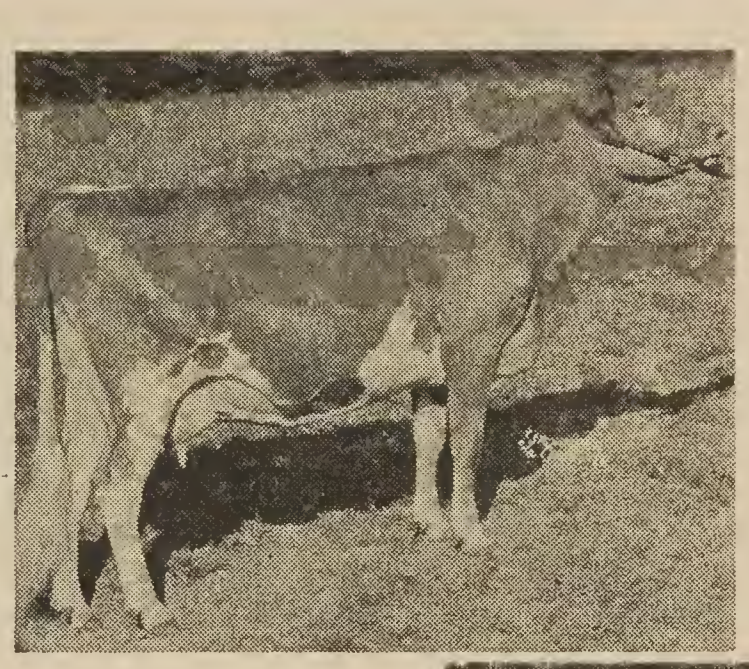


This Ayrshire cow, Sunny Acres Classic's Queen, exhibited by Gerald Evans, Georgetown, (held by Jim Thomas) was winner in the Aged Cow Class. She was also Senior and Grand Champion in her breed, as were all the cows pictured on this page.



Senior and Grand Champion and winner in the Brown Swiss Aged Cow class was Memory Lane's Sylvia, exhibited by Stewart Benedict, Massena.

Winners at NYABC Show



Winner in the Guernsey Dry Cow class (3 years or over) was Locust Lawn Chief's Honey, exhibited by L. S. Riford, Auburn.



Lauroe Elsie Posch Boa, exhibited by Harden Farms, Camden, winner in the Holstein Aged Cow class.



Cornell University entry, Cornell Advancer Hildara, winner in the Jersey Cow class 3 year olds.

N. Y. State Exposition Winners

AYRSHIRE

Females:

Senior and Grand Champion — Kingcrest Vietory E, Melody Lane Farm, Burke, N. Y.

Reserve Grand Champion — Penbuek Sunny Naneett, Sharon Ann Stanley, Mendon, N. Y.

Junior Champion — Clover Crest Beatriee, Thomas Marlow, Ellenburg Depot, N. Y.

Bulls:

Senior and Grand Champion — Lippitt Up Diek, Village Brook Farm, Nedrow, New York

Reserve Grand Champion — Porterdale Betty's Hope, Porterdale Farm, Watertown, N. Y.

Junior Champion — Galvey Parry, William Carney, Nedrow, N. Y.

BROWN SWISS

Females:

Senior and Grand Champion—W. Lila Dee, C. B. Farm, Litchfield, Conn.

Reserve Grand Champion — Vine Valley Design's Pauline, Vine Valley Farm, Rushville, N. Y.

Junior Champion — C. B. Kadaisy, C.B. Farm, Litehfield, Conn.

Bulls:

Senior and Grand Champion — Lee's Hill Kaolin M., C.B. Farm, Litehfield, Conn.

Reserve Grand Champion — Bell-Son's Autumn Cheer, Bell-Son Farm, Howes Cave, N. Y.

Junior Champion — Norvic Lilason Chip, Vine Valley Farm, Rushville, N. Y.



GUERNSEY

Females:

Senior and Grand Champion — Dewan Farms Distinction Muriel, Dewan Farms, Oneida, N. Y.

Reserve Grand Champion — Caumsett Indian Gloryanne, High Meadows Farm, LaFayette, N. Y.

Junior Champion — Greystone Aetorine's Wilma, High Meadows Farm, LaFayette, N. Y.

Bulls:

Senior and Grand Champion — Rogers Farm Perieles, Rogers Farm, Randolph, N. Y.

Reserve Grand Champion — High Meadows Moonson, High Meadows Farm, LaFayette, N. Y.

Junior Champion — McDonald Farms Royal Danny, Cornell University and George Pollaek, MeDonald Farms, Cortland, N. Y.

HOLSTEIN

Females:

Senior and Grand Champion — Stella Orchard Grove Ormsby, Tara Hills Farm, Millbrook, N. Y.

Reserve Grand Champion — Maroy Model Abbekerk, Tara Hills Farm, Millbrook, N. Y.

Junior Champion — Moncony Supreme Max Patti, Moneony Farm, Speneerport, N. Y.

Bulls:

Senior and Grand Champion — Future Hope Blaeky Leader, Weller Farm, Lowville, N. Y.

Reserve Grand Champion — Smitholm Reflection Luke, Hughes & Stoeker & Smith Brothers, Springville, Pa.

Junior Champion — Smitholm Refleetion Louie, Smith Brothers & Ray Roberts, Springville, Pa.

MILKING SHORTHORN

Females:

Senior and Grand Champion — Marie Jewel 23rd, Marbet Farm, Bergen, N. Y.

Reserve Grand Champion — Oak Knoll Roan Ruby 3rd, Oak Knoll Farms, Dansville, N. Y.

Junior Champion — Primrose Beauty 16, Marbet Farm, Bergen, N. Y.

Bulls:

Senior and Grand Champion — White's Adventurer, J.M. & H.M. White, Marathon, N. Y.

Reserve Grand Champion — Oak Knoll Fashion Prinee, Oak Knoll Farms, Dansville, N. Y.

Junior Champion — White's Red Baron, J.M. & H.M. White, Marathon, N.Y.

JERSEY

Females:

Senior and Grand Champion — Mike's Winsome Daisy, Vaneluse Farm, Newport, R. I.

Reserve Grand Champion — Imp. Margarethis Handsome, Vaneluse Farm, Newport, R. I.

Junior Champion — Jester Sleeping Belmont Violet, Vaneluse Farm, Newport, R. I.

Bulls:

Senior and Grand Champion — Sunbeam Favorite Pinnaele, Meadowhurst Jerseys, North Bangor, N. Y.

Junior and Reserve Grand Champion—Eureka's Liberator, Vaneluse Farm, Newport, R. I.

ABERDEEN ANGUS

Females:

Senior and Grand Champion — Ankony Blaekbird 170, Senior Farm, Danbury, Conn.

Reserve Grand Champion — Mahrapo Edwinamere 5, Mahrapo Farms, Mahwah, N. J.

Junior Champion — Mahrapo Elbánee, Mahrapo Farms, Mahwah, N. J.

Bulls:

Senior and Grand Champion — Meadow Lane OB 110, Meadow Lane Farm and Clayton Jennings, North Salem, N. Y.

Junior and Reserve Grand Champion—Mahrapo Bardoliermere 7, Mahrapo Farms, Mahwah, N. J.

STEERS

Champion Angus — Cornell's Lad 3, Cornell University, Ithaea, N. Y.

Champion Hereford and Champion of all Breeds — Big Boy, William Welcher, Newark, N. Y.

Champion Shorthorn — Red, Stony Brook Farm, Locke, N. Y.

HEREFORD



Females:

Champion — WSF Miss Crusty 291, Wehle Stoek Farm, Scottsville, N. Y.

Reserve Champion—WSF Miss Crusty, 261, Wehle Stoek Farm, Seottsville, N. Y.

Bulls:

Champion — WSF Crusty W 321, Wehle Stock Farm, Seottsville, N. Y.

Reserve Champion — G. F. Pawnee Mixer 20, Clove Creek Farm, Poughquag, N. Y.

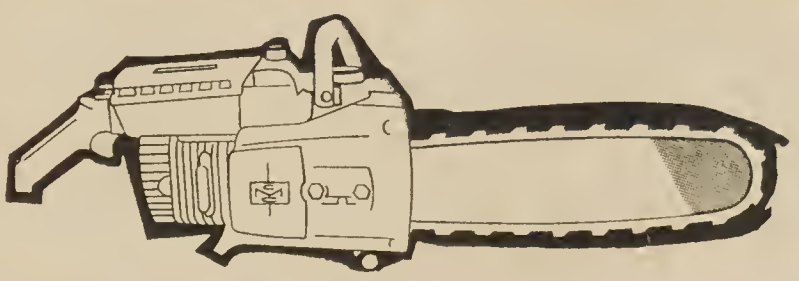
SHORTHORNS

Females:

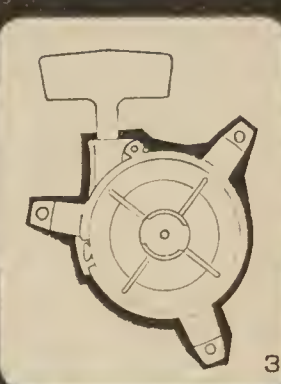
Senior and Grand Champion — Jenny

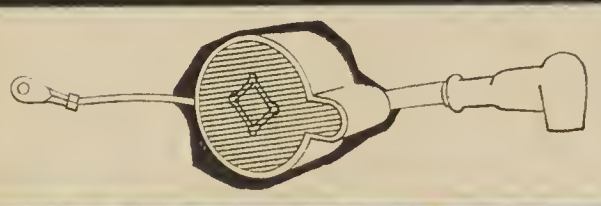
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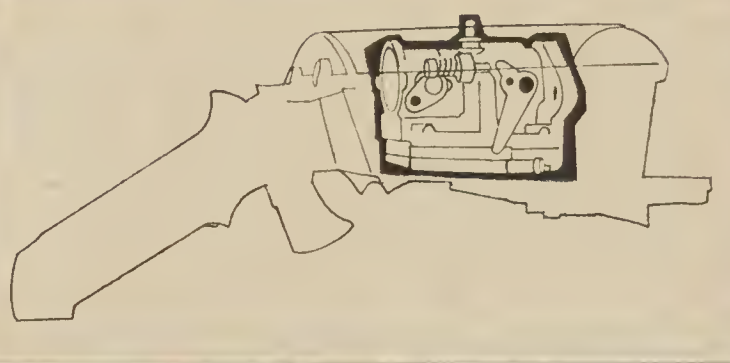
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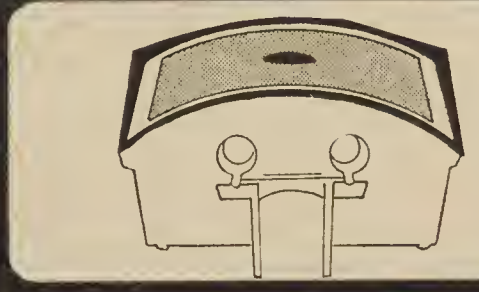

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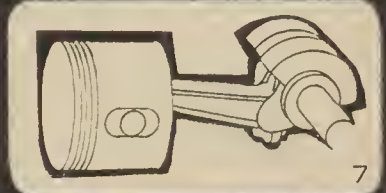

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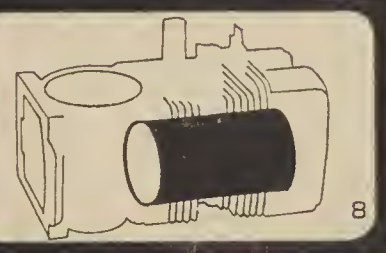

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TEN REASONS WHY PEOPLE BOUGHT A MILLION McCULLOCH CHAIN SAWS

1 is balanced lightweight design so the saw is easy to use at every cutting angle. **2** is the fully automatic clutch with long-lasting metal shoes that delivers full, positive power regardless of load. **3** is the rugged, positive engagement starter that provides day in, day out dependability. **4** is the ignition with weatherproofed coil and sealed points for fast, sure starts. **5** is the fully enclosed carburetor, mounted on top for cooler running and protection against damage. **6** is the extra-large flat air-cleaner that gives superior filtering for long engine life. **7** is the cylinder that has a cast-iron liner to make it reboreable (not a one-life synthetic like some others). **8** is the engine with horizontal piston that works with you to reduce vibration. **9** is the crankshaft that will support a ton of weight without breaking. **10** is McCulloch's Super Pintail® chain designed for fast cutting and long wear. Your McCulloch dealer can give you many other reasons just as good. So, drop in to see him. You can own a new lightweight McCulloch for as little as $149.95*—and that includes 16" bar and Super Pintail chain. Ten models in all; terms are easy on approved credit.

For free color literature, write: McCulloch Corporation, 6101 W. Century Blvd., Los Angeles 45, California, Dept. F

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We've bought the things you need in carload lots and passed the savings on to you. It's time to get set for winter—and GLF, as always, is ready to help.

...st with deep-cut prices on more than 20 needed commodities. ...cond, with scores of values for your home, your farm, your car—the ...west in design and quality, the best in value.

Look at the outstanding values listed on these two pages. Then rush down to your GLF store and harvest the biggest array of values you've seen in many a moon!

Cooperative GLF Exchange, Inc. Ithaca, N.Y.

OSTER® HEAVY DUTY ANIMAL CLIPPER
Reg. $52.50
$29.95
Model A-4 clipper for large animals. Exclusive unitary cutting assembly eliminates blade chatter, skin nicking, and hair pulling. Powerful, precision, air-cooled 115-volt motor runs smoothly and quietly, doesn't frighten the animal. 3" cutting blade. Complete with 20-foot cord.

OVERNITE BATTERY CHARGER
Reg. $22.50
$15.95
Works on 6 or 12-volt batteries, complete with automatic circuit breaker, amp meter, and battery clips. 110-volt AC input. Every 2-car owner should have one.

UNICO 13 FT. REFRIGERATOR
Reg. $293.95
$239.95
Frost-free—never needs defrosting. Ample freezer capacity. Built-in dairy bar...full width fruit bin and large crisper bin. 62" high, 30¾" wide and only 26⅜" deep.

PERFECTION SUSPENDED MILKER
Reg. $129.50
$99.50
...rfection Model No. 84, with ...timating action that gets all ...e milk, gets it faster, with no ...ing or jerk. Cow's back—not ...e udder—supports the weight ...f the pail and the milk.

MONKEY FACE GLOVES
Reg. $.58 pr.
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Grab a pair of these rubberized gloves at this special price and you'll be ready to handle the grubbiest chores without dirtying a finger.

LINE-O-HEAT HEATING TAPE
Reg. $3.45
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Eliminate frozen water pipes or pumps with electrical heating tape. Safe, easy to install on regular house wiring. 12' Heating Tape.

PLASTIC UTILITY PAIL
Reg. $.89
$.69
This 11-quart Squire Applegate pail is light, because it's plastic. it's bright because it's yellow. Get two...it's always easier to carry a balanced load.

COMBINATION WINDOWS
Reg. $15.95
$11.45*
Triple-track construction for complete self-storing of storm panes and screen. Custom fit to your house for good looks, great insulation. Windows lock in any position for safety. Tilt in for easy, safe cleaning at the touch of a finger.
*Slightly more if length plus width is more than 103 in.

16" FAN AND SHUTTER
Reg. $99.50
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While They Last
Use in your attic, small barn, or poultry house. Pushes out 2630 cu. ft./min. with its ⅛ h.p. motor. Shutters open when fan goes on, close when it shuts off, keeps out gusty winds.

PERFECTION VACUUM PUMP
Reg. $149.50 w.t.
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Perfection Model No. 40 TD, rated at 9 cfm, or up to three milker units. Complete with 12 gallon tank and ½ h.p. motor

SIX-TINE UTILITY FORK
Reg. $4.85
$3.95
Pitch one of these in with your Golden Harvest buys. Built to last and to work with you—oval tines are 12½" long. 4 ft. handle.

UNICO 15 FT. CHEST FREEZER
Reg. $229.45
$195.00
Holds 529 pounds. 56" long, 36" high and 27½" wide. Basket and divider included. ¼ H.P. compressor. Easy-to-adjust temperature control from 0 to –20° for complete food safety.

RED-I-POST
Reg. $9.25
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Self-lubricating bronze bearing adjusts from 5'8" to 8'4". Safe and easy to use in new construction or under a sagging cellar beam. Screw turns easily for installation and adjustment.

BLACK & DECKER ¼" UTILITY DRILL
Reg. $16.95
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The famous No. U-100 drill will save you hours of work on maintenance and repair jobs. Drives all the many B & D ¼" drill attachments for sawing, screwdriving, sanding, etc.

REDI-GRIP MUD & SNOW TIRE
Reg. $27.95 plus tax
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Our First Line Traction Tire. Rugged shoulder bars dig in for greater pulling power. **Nylon**, 750 x 14", Black sidewall, 4 ply, **Tubeless**. All other popular sizes available.

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...g. $15.95
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...ott Titan blankets ...ress with quick, ...heat. Heating ele... ...tionally guaranteed ... Operates right off ...d 120-volt wiring, ...derwriters' Labora... ...ents.

SYLVANIA 60-WATT BULBS
Reg. $.25
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Harvest this value by the bushel. You can, at this low Golden Harvest price. Inside frosted.

K8 AUTOMATIC POULTRY WATERER
Reg. $14.85
$6.95
While They Last
Free yourself of a troublesome chore. Keeps water in front of your flock all the time. 8-foot-long, 23¾" deep. 14 gauge steel trough, porcelain finish, wire top guard, suspends easily from ceiling.

A COMPLETE FIXED LINE MILK TRANSFER SYSTEM
FOR ONLY
$895.00
Installed
Reg. $987.00 $125 Down
Price for typical installation includes P-593 Pumping Station, 1" O.D. stainless steel pipe for 70-foot run, 3 milk inlets, 4 grounded electrical outlets, hangers and all required parts. We'll be glad to quote prices on other types of installations without obligation.

50-GALLON ELECTRIC WATER HEATER
Reg. $95.15
$69.95
Glass lined for long, trouble-free service...10-year warranty. White enamel baked on outer jacket of heavy gauge steel. Factory-calibrated thermostat delivers water at any temperature you desire between 120-170°.

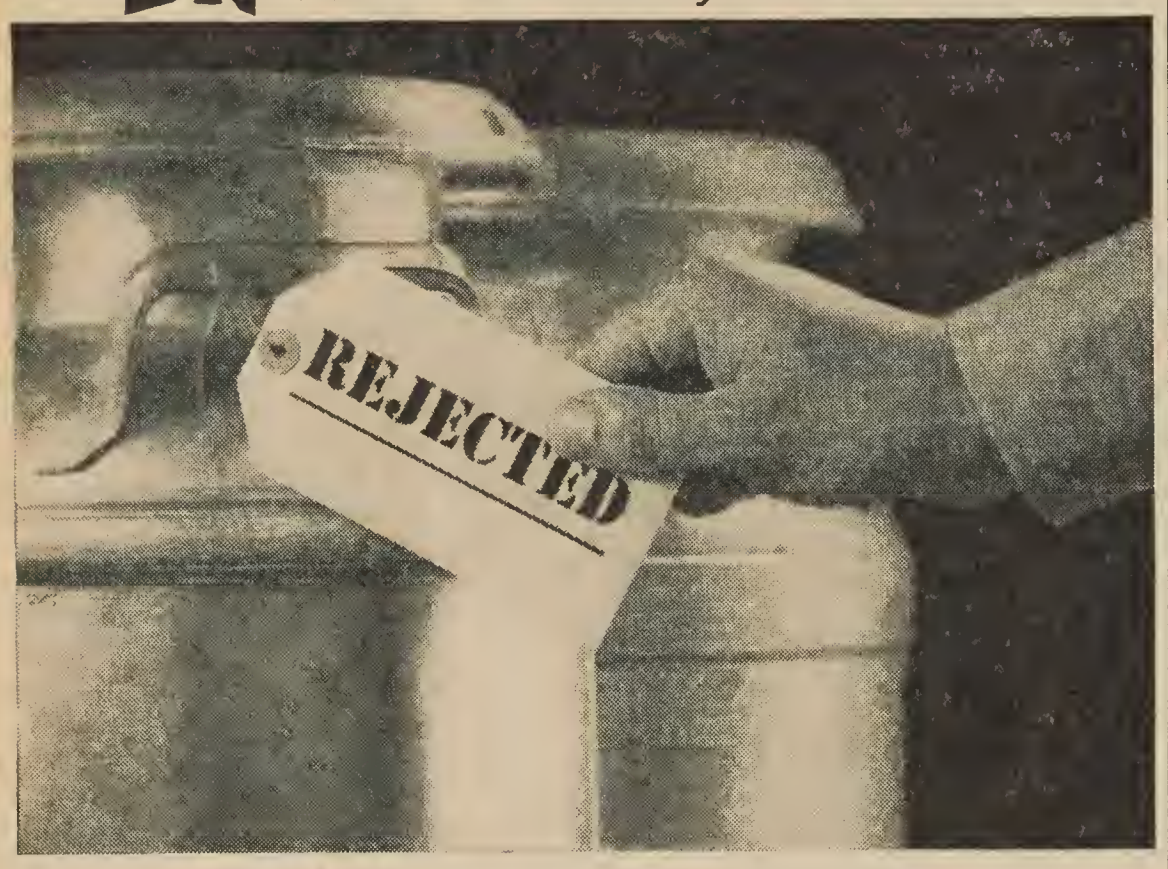
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Oct. 1 - Oct. 27



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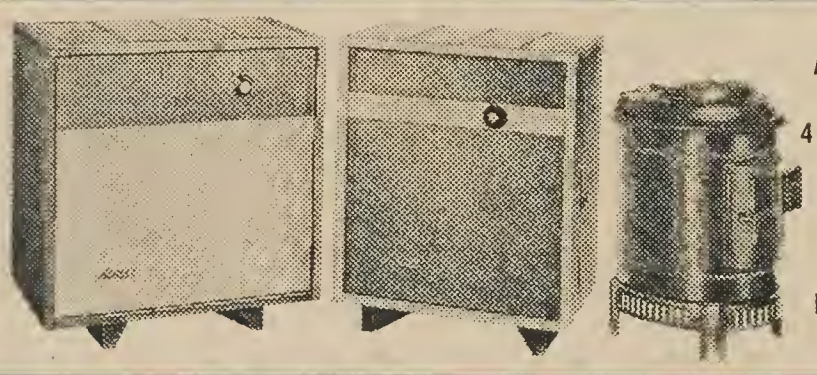
B-K Powder works quickly to control bacteria that lower milk quality. Used as directed, it imparts no odor or flavor to milk. It is *stable*—maintains full concentrated strength of 50% available chlorine during normal storage life.

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Burt Owens, left, looks on as neighbor Willard Spencer checks corn maturity with Harold Sweet, right.

He Was Ready!

BURTON OWENS, Canton, Pennsylvania, not only wanted rain during last summer's dry spell, but he was **ready** for it! The Owens farm consists of 280 acres in the Keystone State's Tioga County, one of many counties named as a "disaster area" in midsummer as the ground parched day after day without rain.

Acting on the advice of feed and fertilizer company agronomist Harold Sweet, Burt had embarked in 1961 on a program of nitrogen fertilization that delivered in the drouth of 1962 with enough hay to "winter through" his 35 milkers and around 20 head of young cattle. "Added nitrogen 'made' the hay crop this year," Burt says. This is in contrast to two other dry years since 1945 when he had to buy hay for the herd—then numbering 25 cows—even though farming the same acreage.

Meadow fertilization includes, first of all, liming fields to a pH of 6.8. Early in the spring (April 25 in 1962) 200 pounds per acre of ammonium nitrate was spread to get the hay off to a fast start. Spring and early summer moisture, combined with the "zing" of nitrogen, pushed the hay crop along to good yields in spite of dry weather later. In the future, Burt also plans on using 0-15-30 as a fall topdressing on meadows.

The Owens had six acres of some mighty respectable-looking Pennsylvania 215 corn to fill their silos, too. There are 16 almost level acres among the rolling fields of cropland, and Burt plans on using all or part of these 16 acres for corn year after year.

Preparing for the 1962 corn crop, he first applied to the sod around 20 tons of manure per acre during the winter, then plowed down 320 pounds of ammonium nitrate per acre, followed by 350 pounds per acre of 8-16-16 fertilizer in the planter. As soon as the corn roots completed their count-down, they found fuel in the soil for taking off!

Beside this field of corn is a field with aftermath growth that even makes a person's mouth water. A mixture of Viking trefoil, Climax timothy, and ladino clover, it stood six inches high and as even as a billiard table. But Burt wasn't planning to cut it because he didn't need it for his cattle—a mighty good feeling in a "disaster area". "Besides," he said, "it will winter through better if I leave it alone this fall."

In wet years, it's sometimes not as easy to see the differences in production between fields that are skimped on fertilizer and those that have enough. In a dry year, the acres that are "ready for rain"—and the crops ready to use fast what soil mixture there is—stand out like green thumbs.

Were YOU Really Ready For the Next Rain?

By DR. GEORGE C. MOORE*

IF I HAD asked you such a question during the drouth last summer over much of the Northeast, you probably would have figured I needed my head examined. But there's a difference between whether you **need** rain and whether you're **ready** for it.

I saw a bean field in Ontario County last summer that wasn't ready for a rain. Its soils were well drained, could absorb about .6 inch of water per hour. But 1.2 inches fell in an hour; 20 years of records and measurements show that we can expect three such rains each growing season that may fall faster than the intake rate in a one-hour period.

On other soils less absorptive, the rain may fall six to nine times in a growing season at a rate faster than the soil can soak it up—resulting in run-off and erosion, This gives the reason for holding water where it falls whenever it falls faster than it can be absorbed. Contour rows is one answer.

In another instance, a grower of field corn noticed "firing" of the lower leaves and a general light green color of the top half of the plants. It had not wilted, although the soil seemed powder-dry — the symptoms were typical nitrogen starvation. Even with adequate water, the field was destined for a short crop.

Producers of hay, using timothy as the mainstay, have little or no second growth following first cutting. Timothy is not rated nearly as high as smooth brome grass for renewed growth anyway — even in years of normal rainfall. Both need an ample supply of nitrogen to make a recovery.

Alfalfa is well known for its productivity but, on most soils, it requires annual application of potash —especially following removal of the first cutting. Then, too, the acidity often needs correction by liming

(Continued on Opposite Page)

*Agronomist

EXPOSITION WINNERS

(Continued from Page 23)

Broodhooks, Glen Cove Farm, Windsor, N. Y.

Junior and Reserve Grand Champion—Plewlands Dauntless Maid, Plewlands Farm, Cumberland, Ontario, Canada.

Bulls:

Senior and Grand Champion — Glen Cove Keynote, Glen Cove Farms, Windsor, N. Y.

Junior and Reserve Grand Champion—Glen Cove Viceroy, Glen Cove Farms, Windsor, N. Y.

SHEEP



Exhibitors of champion rams in the various breeds were:

Cheviot—George Ramsey, Friendship, N. Y.; Columbia—Harry Clauss, Canandaigua, N. Y.; Corriedale, Timothy Fitzpatrick, Wayland, N. Y.; Dorset—George V. Hunter, Stoneboro, Pa.; Hampshire—Birch Bark Farm, Richfield Springs, N. Y.; Oxford—Miss Jane McIntyre, Jordan, N. Y.; Rambouillet — Kenneth T. Moore, Nichols, N. Y.; Shropshire — Kenneth T. Moore, Jr., Nichols, N. Y.; Southdown — Eloise Spraker, Bath, N. Y.; Suffolk—John A. Alexander, South Royalton, Vt.; Tunis —S. Dewitt Stewart, Bath, N. Y.

Exhibitors of champion ewes in the various breeds were:

Cheviot—S. Dewitt Stewart, Bath, N. Y.; Columbia—Harry Clauss, Canandaigua, N. Y.; Corriedale — W. H. Preston, Springwater, N. Y.; Dorset—George V. Hunter, Stoneboro, Pa.; Hampshire—Kenneth T. Moore, Jr., Nichols, N. Y.; Oxford — Lawrence Davey, Marcellus, N. Y.; Rambouillet—Kenneth T. Moore, Nichols, N. Y.; Shropshire—Dorothy Munbenbeck, Schenevus, N. Y.; Southdown—Eloise Spraker, Bath, N.Y.; Suffolks — Mrs. Ford Cooper, Reynoldsville, Pa.; Tunis — S. Dewitt Stewart, Bath, N. Y.

Owner of Champion Wether was Ray Schrader, Nichols, N. Y.; Grand Champion Fleece of Show was exhibited by Fred H. Zaubner, Brewerton, N. Y.

DRAFT HORSES

(Exhibitors of Grand Champions)

Mares:

Belgian — Norman Prior & Sons, Phoenix, N. Y.

Percheron—Charence Schmitte, Liverpool, N. Y.

Stallion:

Belgian—Bruce McCullock, Whitney Point, N. Y.

Clydesdale or Shire—Henry C. Venier, LaFayette, N. Y.

Percheron—Lester D. Greene, Freeville, N. Y.

New York State Grade Draft Horse — Ernest Luke, Weedsport, N. Y.

PACKAGED VEGETABLES

1st—Onondaga County Vegetable Growers Assn.

2nd—Rochester Area Growers Assn., Rochester, N. Y.

FRUIT DISPLAY

1st—The New York State Grape Growers Co-op., Inc., Brocton, N. Y. (This exhibit also won the H. S. Duncan Marketing Award).

2nd—Western New York Apple Growers Assn., Inc., Rochester, N. Y.

SWINE

Championship ribbons in the swine breeds were awarded as follows:

Berkshire — Boar and Sow — Ralph Bliek, Williamson, N. Y.

Yorkshire — Boar and Sow — Sir William Farm, Hillsdale, N. Y.

Hampshire — Boar and Sow — Ford A. Cooper, Reynoldsville, Pa.



Duroc — Boar and Sow — Happy Acres Farm, Waterloo, N. Y.

Landrace — Boar — Clinton Prison, Dannemora, N. Y.; Sow—Green Haven Prison, Stormville, N. Y.

Chester White — Boar and Sow — Marian Tyler, South Byron, N. Y.

Poland China—Boar and Sow—Clair Hartman, Gratz, Pa.

Champion Barrow—Fred Olmstead, W. Bloomfield, N. Y.

In the Quality Pork Contest, Marian Tyler, South Byron, had the champion carcass; Ford Cooper, Reynoldsville, Pa. had the reserve champion.

WERE YOU READY?

(Continued from Opposite Page)

and needs for phosphorus met. If any one or all these requirements were not met, would such fields be ready to make use of the next rain?

We have about three growth seasons of the grass and legume forage plants normally produced in New York State for forage—May 1 to June 15, June 15 to August 1, and August 1 to October 1. If the first harvest is delayed much past June 15, we are borrowing time from the next growth period.

So, how about the man who extends his hay harvest into July—will he be ready for the next rain as fully as if he kept his plants in active growing condition by June removal of first growth?

Then, over the long pull, we can encourage deeper root growth by the use of drainage and deep placement of lime in acid soils. Deeper roots in turn mean that plants are not so easily victimized by drouth. And, of course, if rain comes in excessive amounts over too long a period, the drainage system will prevent too much soil moisture from accumulating.

Throughout the "disaster" area of New York State, there were plenty of examples to show that there was opportunity unlimited — within the currently recommended and proven practices—to allow farmers to successfully meet drouth conditions.

Coming Meetings

October 10-11—Dairymen's League Annual Meeting, Syracuse, N. Y.

Oct. 10-12 — 35th National FFA Convention, Municipal Auditorium, Kansas City, Mo.

October 13-14 — Annual Horticulture Show, Ratcliffe Hicks Arena, University of Connecticut, Storrs.

October 20 — NYABC Annual Meeting, Ithaca, N. Y.

October 20 — Third Annual Northern Classic Sale (Aberdeen-Angus), Millbrook, New York.

October 22-25—Pennsylvania State Grange Annual Meeting, Reading.

October 25 — Feeder Calf Sale & Grading Demonstration, Dryden, N.Y.

Oct. 25-26 — 1962 G.L.F. Stockholders Annual Meeting, War Memorial, Syracuse, N. Y.

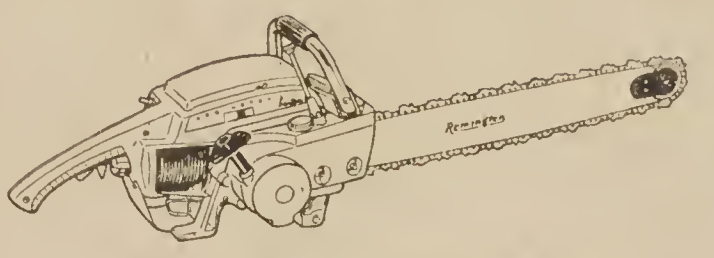
October 26-28 — Annual Farm and Home Show, Granston Street Armory, Providence, R. I.

Oct. 27-28—Eastern Cabana Nutria Conference, Hotel Syracuse, N. Y.

October 28-November 2 — Dairy Industries Exposition, Atlantic City.

October 29-November 2 — New York State Grange Annual Meeting, Syracuse.

October 29-November 2 — New York Holstein-Friesian Association annual Breeders' Institute meetings: Malone, October 29, Franklin Academy; Watertown, October 29, Town Barn; New Hartford, October 30, Farm and Home Center; Schaghticoke, October 30, Hoosick Valley School; Delhi, October 31, Ag. Tech. Institute; Cortland, November 1, Grange Hall; Canandaigua, November 1, Farm and Home Center; East Aurora, November 2, Farm and Home Center.



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HASKELL.....United Rent Alls
HEWITT.....Monns Hordware
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STEPNEY.....Millord Welding
STRATFORD.....H. C. Lovells Hordwore
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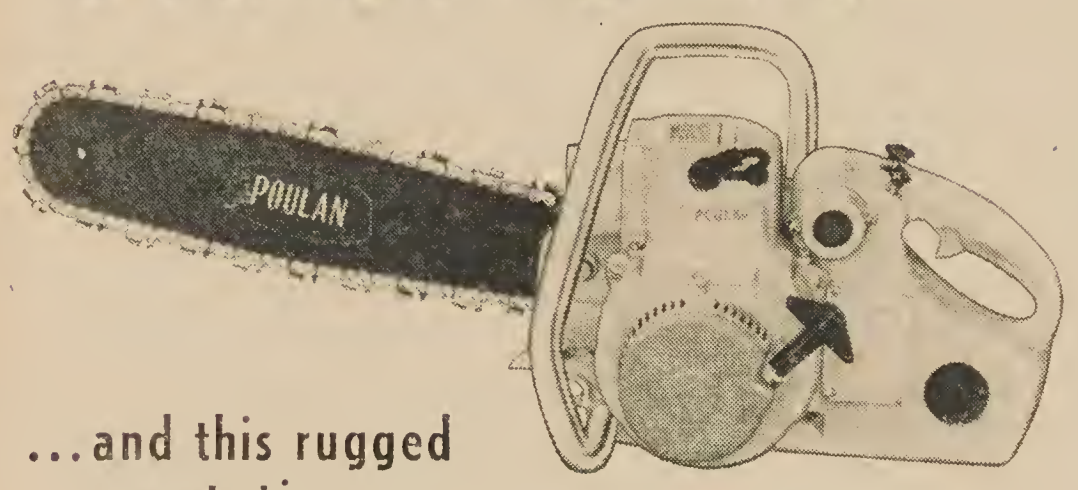
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FREEPORT, L. I.....M & M Rentol Repoir
FULTON.....Foster's Gorden Center
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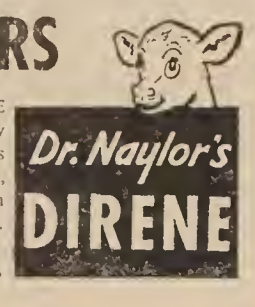
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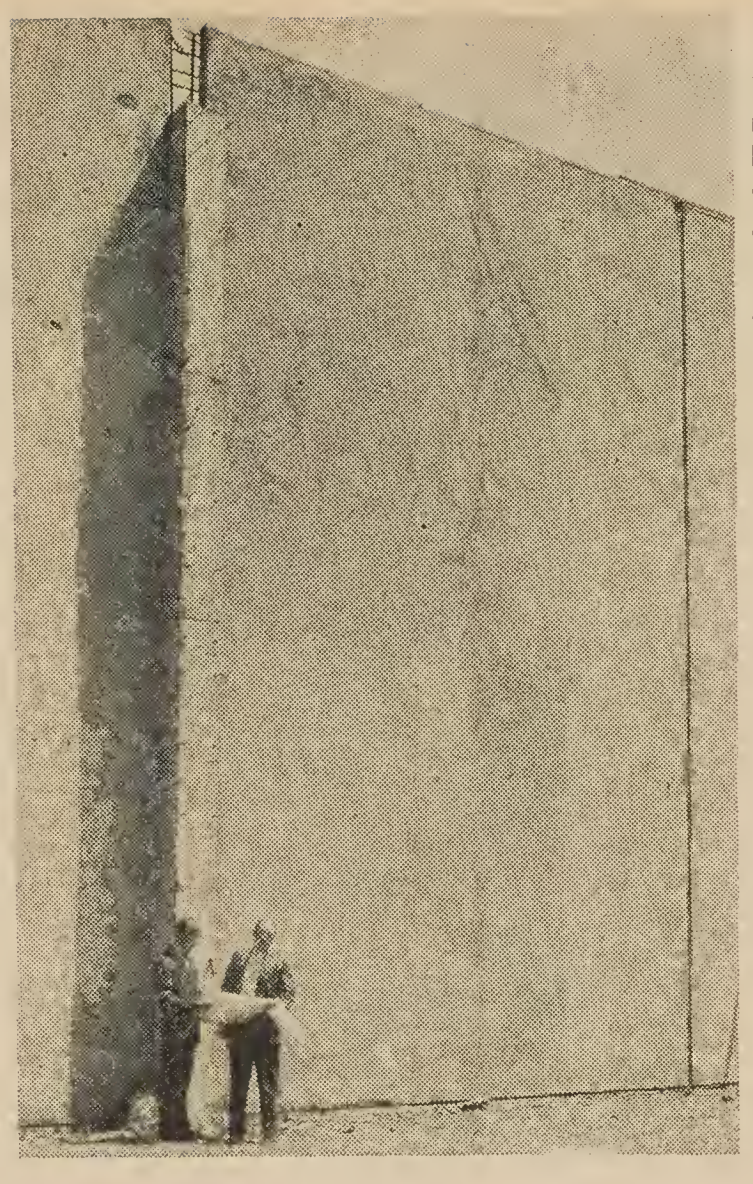


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Bob Gibbs, New York State representative of the Portland Cement Association (left) and Walter Schreiber, Manager of the Northeast Fruit Exchange, Inc. look at blueprints for new storage. That slab behind them is 20' x 30' weighs around 40 tons. Took quite a crane to lift it into place!

Concrete CA Storage

NOT long ago I had an opportunity to visit the site of a new apple storage plant being erected by the Northeast Fruit Exchange, Inc., near Livingston, New York. The structure is of huge tilt-up concrete slabs, similar to the one pictured on this page, and it will include a regular storage room for 80,000 boxes of apples, plus three controlled atmosphere (CA) rooms that will hold a total of 67,000 boxes.

The CA rooms are each 30' x 30' x 80', insulated with styrofoam, with separate CA units. It is planned that one of the rooms will be used for storing processing apples, while the other two will store fresh market fruit. The grading and packing facilities are large enough to handle 3,500 to 4,000 boxes per eight-hour day, and the apples are "floated" out of their bins into water, eliminating danger of bruising.

CA storage, designed to slow down the "breathing" rate of apples, uses an inside atmosphere of 3% to 5% carbon dioxide and 3% oxygen. But when the storage room is once opened, the apples have to be moved into trade channels within three or four weeks, because it takes too long to re-duplicate the CA levels of oxygen and carbon dioxide.

In visiting with Walter Schreiber, manager of the Exchange, he commented that they had considered putting into their plant the new Westinghouse equipment, which is claimed to have such high capacity that it can "draw down" the oxygen level of CA storage rooms rapidly enough to enable them to be opened, partially emptied, and then resealed.

Said Wally: "This would be a wonderful development—but we finally decided that there just haven't been enough tests as yet to make us sure about putting it in as original equipment."

There are eight members in the Northeast Fruit Exchange, and two associate members. All the orchards are located within an eighty to ninety mile radius—an area wide enough for assurance that there is little or no danger of frost or hail wiping out all of the crops at one time.

The average production of the growers in the organization at present is between 300,000 and 350,000 boxes, and it is anticipated that in five years it will have risen to 500,000.

Nearby—literally within a stones-throw of the Exchange (and operated by the Exchange) — is the Northeast Fruit Growers Cooperative, a 17 member organization that proccsses fruit. Six members of the Cooperative are also members of the Exchangc.

Wally Schreiber bclieves that with fruit, as with potatoes and vegetables, there is a marked trcnd toward more consumer demand for processed products rather than fresh. In some years growers can net greater returns from processed apples than from attempting to sell them fresh. This, is, of course, particularly true in years of large production, when it works best to hold the lower grades off the market and process them.

There is no doubt that CA storage for apples has taken the pressure off the early part of the harvesting season, and that there is a great market for such apples when fruit from "regular" storage is unavailable. One example is that in 1961 California consumers bought considerable quantities of CA stored apples from the East — principally Macs.—*G.C.*



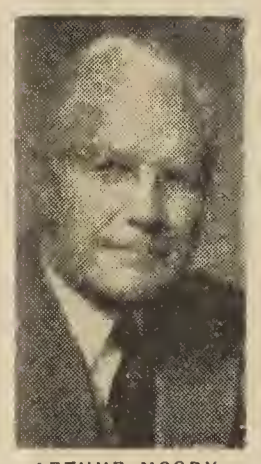
"If you don't like the way I drive, I wish you'd just say so!"

Country Pastor

Reading the Bible

By ARTHUR MOODY

IT SEEMS to be well known that the Holy Scriptures, usually called The Bible, is a one-volume library of 66 books, composed of history, law, philosophy, biography, letters, wisdom, geneology, and prophetic literature. In our home we were taught to "find our way around" in this library by playing a game called "Where is it?" or "Who finds it first?" Given a reference, we went hunting for Bible verses, and soon learned more than the names of books of the Bible; we learned where they were in the volume itself.


ARTHUR MOODY

Many think there is a virtue in reading the Bible through. They begin with Genesis and finish with Revelations. It is rather discouraging (especially for youngsters) to wade through laws, genealogies, wise sayings, before getting the essential meaning of it all. Jesus, our Savior, is the central figure; why not start with His story? There are four "lives of Jesus;" Matthew, Mark, Luke and John. The birth of Jesus is found in two—in Matthew, the Wise Men's visit; in Luke, the visit of the Shepherds.

The life, teachings and deeds of Jesus are basic to Christians. Next is the history of the early Christian church told in Acts. It took me a long time to get the fact that Luke and Acts form a continuous story told by Dr. Luke. It has become basic with me to read and re-read these two books. They make Matthew's story and John's Gospel mean more; Paul's epistles are better understood. The Law and the Prophets of the Old Testament become **lighted up** by knowledge of "The Light of the World."

A Dairyman's Search for Better Housing

(Continued from Page 10)

than with grass silage, the Copes think. There's less weight to handle, and labor requirements are smaller. Cornell University reports that the feeding value of low-moisture silage, or haylage, has for milk production been equal to that of good hay or wilted silage—and there is no seepage or objectionable odor.

The ear corn silage with which the Copes also plan to cut feed costs is a concentrate. It is the grain, cobs, and husks chopped into the silo and preserved by exclusion of air. In Cornell tests, the feeding value of car corn silage has been almost equal to that of corn and cob meal on a dry weight basis. Corn does not need to be mature for ear corn silage to keep; this can be another advantage in years when corn does not mature adequately, the Copes feel.

The new feeding program at Lew-Arn-Hurst Farm requires 70 acres of additional corn, plus the following extra supplies and equipment: 21 tons more 12-12-12 fertilizer; 250 pounds atrazine herbicide; 4 tons more urea fertilizer annually; a new corn planter; industrial-type two-row corn picker-chopper; new drags; a swather; another forage-unloading wagon; a six-bottom plow; a larger tractor; and 2 new glass-lined airtight silos.

By increased capitalization of their present 518 acre farm they believe they can eventually fill their 123 free stalls with milking cows, and feed them fully without purchase of additional land. If the zero-graze haylage and ear corn silage feed program works out successfully, they could devote to additional cows barn space that is now given to hay. This would require more silos—but it could mean up to 180 milking cows.

The Copes give another reason for going into this modern feed program—political economy. When one appointed man has authority to dump or withhold feed grain in the marketplace, the Copes argue that it behooves farmers to find some means to independence from anything so regulated.

Breeding and Records

The Copes breed most of their herd to ABS bulls. But they also keep two registered Holstein bulls of their own, with excellent production behind them. Lew-Arn-Hurst Gypsie Barbie, dam of their L.A.H. Carnation Bonheur bull by Council Rock Worthy Aristocrat, has produced more than 121,770 pounds of milk and 4,000 pounds of butterfat.

Through improved breeding, feeding, and management, the Copes have increased productivity of their herd remarkably in the past few years. In 1959, the 85 cow herd produced an average of 9,895 pounds of milk at a feed cost of $1.91 per hundredweight of milk. The herd's running DHIC average recently advanced to 13,308 pounds of milk and 461 pounds of butterfat per year. Feed cost was pared to $1.76 per hundred pounds of milk produced. "It isn't sensible just to keep cows," Lewis states—"the thing to do is to keep good ones!"

MOUSE CONTROL IN ORCHARDS

(Continued from Page 8)

except that five times as much poison bait will be required for the same acreage. As with the hand placement method, where numerous drops are present, poisoned oats should be placed in the artificial runway alternately with the apple bait.

Ground Sprays

In recent years, organic insecticides have been successfully used as ground sprays for control of orchard mice. Toxaphene has been used in some states, and in Virginia the use of Endrin was developed as an efficient ground spray, particularly for the control of pine mice.

Endrin has since been used in other states to control both meadow and pine mice, although the U. S. Fish and Wildlife Service feels that not enough is known about its toxic effects, and objects to its possible runoff into streams, farm ponds, etc.

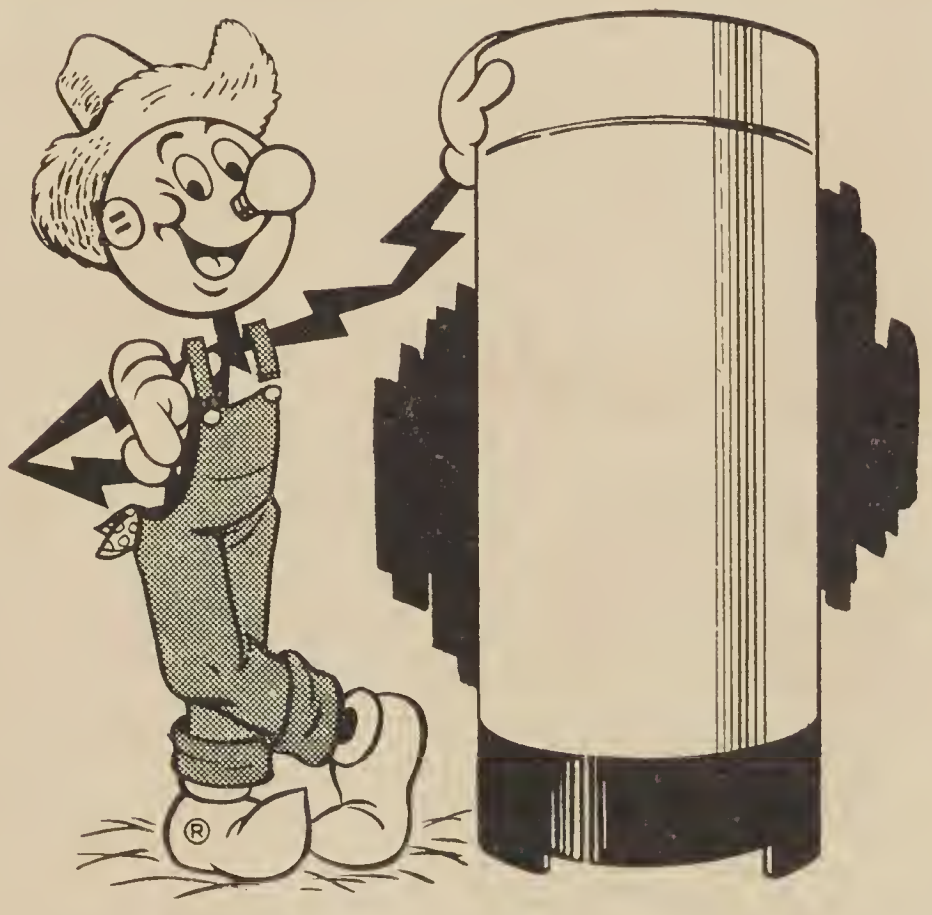
There have been claims of "bounce back" in areas using Endrin, with the thought that it is non-selective, kills most forms of animal life, and therefore also kills would-be predators and parasites that help to keep the mouse population under control.

Also raised is the question of cost —about $9.00 per acre for Endrin. In New England some feel that Endrin doesn't penetrate a heavy vegetative cover, but it is used in some parts of New Jersey and in the Hudson Valley for the pine mouse problem.

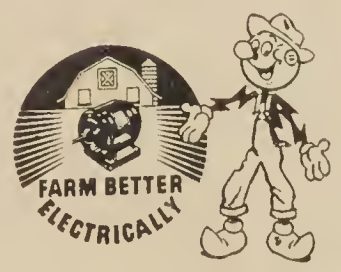
However, Dr. Frank Horsfall, Jr., of the Virginia Polytechnic Institute, feels that Endrin is still the best material for the commercial grower, and that the failures reported have come from "cutting corners" and a lack of understanding of the basic principles of the method. In any use of this material, instructions must be followed meticulously.

The job of controlling mouse population is a never-ending one, but if you can get good control at the beginning of the winter, at least they will re-populate more slowly.

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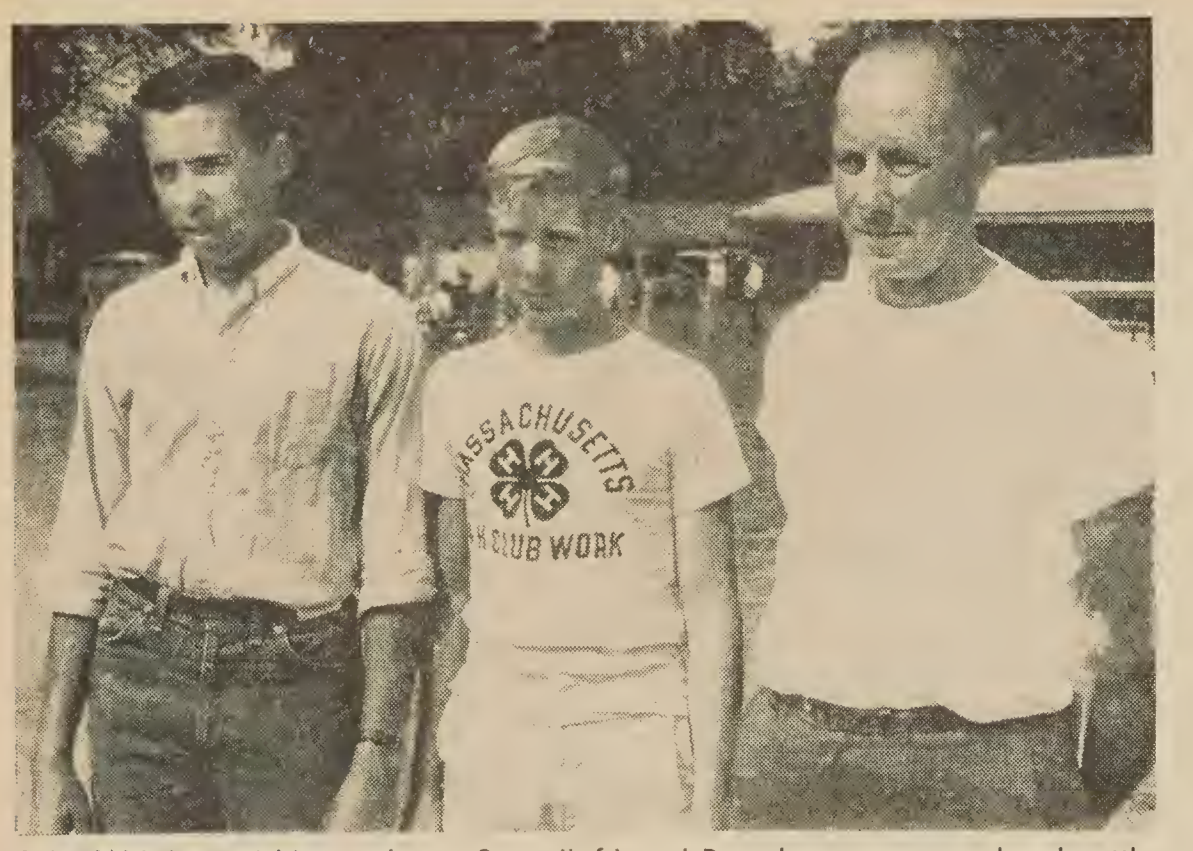
- A reserve supply of hot water on call at all times . . . automatically. You *never* run out of hot water.
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NIAGARA MOHAWK

INVESTOR OWNED–TAXPAYING



John Wright and his two boys, Scott (left) and Brandon, were at a local cattle show when we visited about corn silage.

"Heavy" On Silage

(Continued from Page 1)

also reminded me that it costs a lot of money to seed a meadow.

All of the men I visited with agree that high yields are essential. First, there is the question of varieties. It is important to choose varieties suited to the area, and to have corn maturing at different dates so the entire crop can be harvested at the right stage. On August 23, Kay Andrus was chopping corn for green feed. It was an early variety and the yield was good, but much less than other fields of later varieties. Lou Longo greenchopped corn from July 1 to August 22. He planted 82,000 plants per acre on May 2, and began chopping in 60 days; no ears, of course, but 18 tons per acre of green feed in early July, and up to 35 tons in August. Lou also puts up about 1,400 tons of corn silage.

There is a trend toward less tillage. Art Hodges "plow plants." Eastern Connecticut is stony, and Conrad Nelson plows, picks stones, and harrows as little as possible to get a good seedbed. John Wright plows and harrows once.

For weed control, all of the men use chemicals (mostly Atrazine), but only one cultivates. The exception is Art Hodges, who uses Atrazine in a band in the row. He believes that corn needs cultivation, and goes over his fields three or four times. Certainly chemical weed control has done much to cut production costs.

Plant population per acre has been stepped up. Conrad Nelson has increased his stand from 18,000 per acre to 22,000. Art Hodges plants at the rate of 33,000 plants per acre; George Gadboy aims for 18,000. I've already mentioned Lou Longo's 82,000 for early green feed only.

Obviously, more plants per acre need more plant food, and they are getting it. With higher amounts of fertilizer, there is a trend toward splitting applications. Some fertilizer is plowed under, some broadcast and harrowed on after plowing, some used in the corn planter, and most of the dairymen I visited sidedress with nitrogen, commonly in the form of urea.

Also, with heavier use of commercial fertilizer, there is less dependence on manure. In fact, Art Hodges believes he can grow better corn without manure and puts the manure on grass, most of which he sells in the field if possible. For roughage, his heifers get hay, but no corn silage until they are a year old. Then they get free choice hay and corn silage until shortly before first freshening.

Other men indicated that they would be glad to give the manure to anyone who would clean the stables and take it away, but John Wright, who moved on this farm a few years ago, is still in the process of building up his soil. He feeds his cows in stanchions in a poletype barn so that he can put all of the manure on the land.

Nitrogen seems to be the most important fertilizer element. One agronomist's recommendation is to apply 100 pounds of nitrogen, 100 pounds of phosphoric acid, and 100 to 125 pounds of potash per acre. (This would be equivalent to 1,000 pounds of a 10-10-10 in terms of nitrogen and phosphoric acid; slightly more in terms of potash).

The amounts and method of applying plant food vary, depending upon soil, availability of manure, etc., but all fertilize heavily.

Lime was emphasized by Lou Longo, who has his soil tested every year. Recently he doubled the rate of liming to a ton per acre per year. He feels that in time (perhaps 3 years) he can cut this to ¾ of a ton per year.

Increasing the acreage of corn silage means growing corn on the same fields year after year. Is this possible? The answer is yes. Art Hodges says his land works up better every year. He has grown corn on the same fields for 12 years; Lou Longo for 12; and the others for various periods. Incidentally my friend Frank Stark, Columbia County, New York, has grown corn on the same field for 16 years.

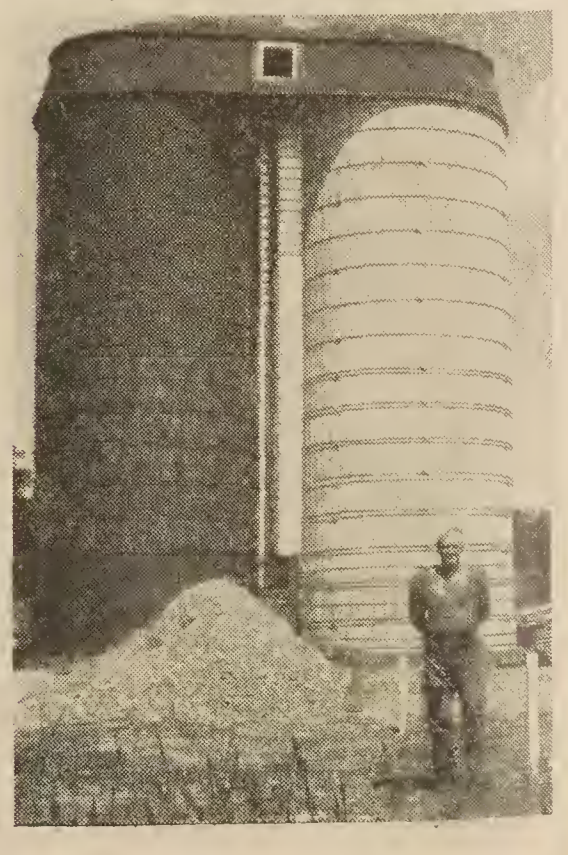
In the past, there has been some fear that the humus content of the soil would drop steadily. Doubtless it would on corn fields with low yields, but the root residue of high yielding corn is tremendous.

One dairyman visited expressed a belief that 12 tons of manure per acre per year would maintain humus; but manure was seldom mentioned by the others. Cover crops, so far as I observed, were seldom used.

What about yields? Thirty tons per acre is not uncommon. That's equiv-

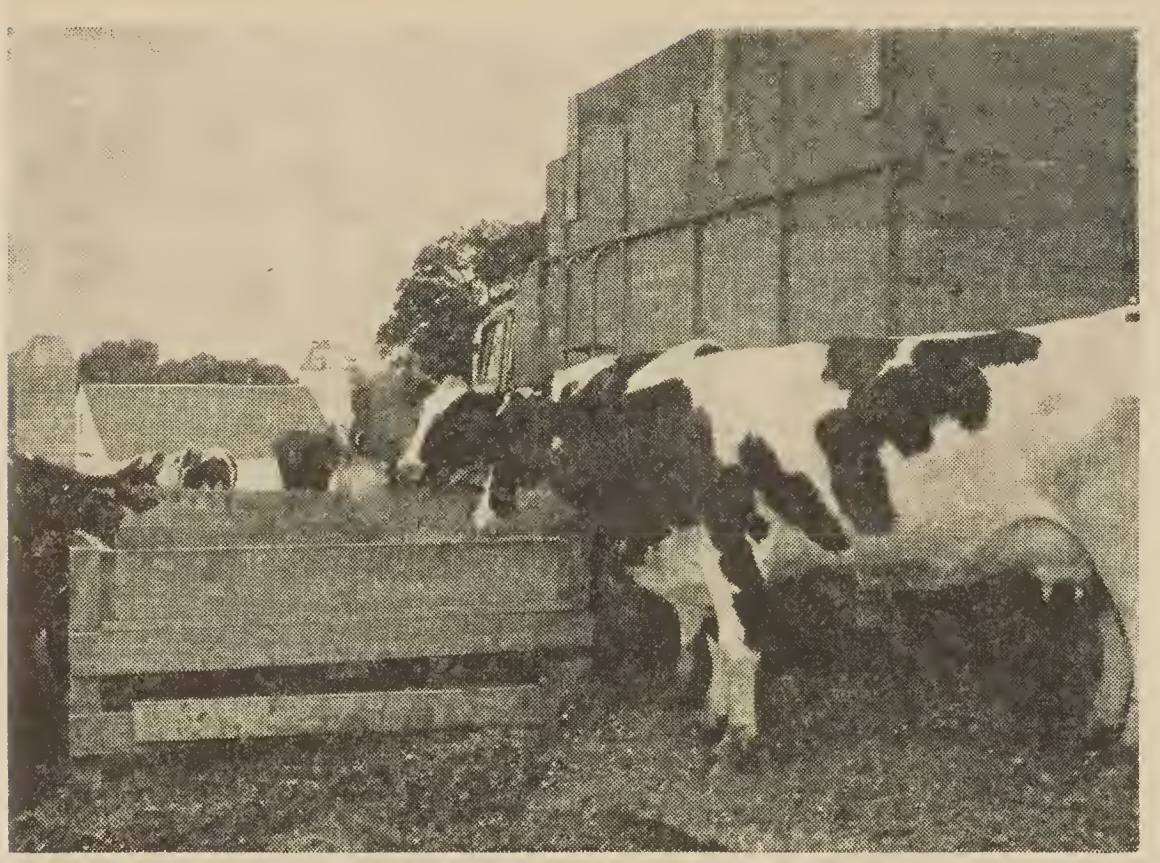
(Continued on Opposite Page)

George Gadboy and two new silos recently built—both 16' x 40'.



The success of Mohawk Airlines stems largely from the tailoring of its service to the transportation needs of business and industry in New England, New York State and west to Pittsburgh, Cleveland and Detroit.

MOHAWK AIRLINES INC.



Art Hodges feeds silage from many places during a year—from a bunk as pictured here, from tower silos, and from trench silos.

"Heavy" On Silage

(Continued from Opposite Page)

alent in dry matter to 10 tons of hay!

Methods of storing vary. Art has 6 tower silos and several trench silos without concrete with a total capacity of 3,500 tons. He feeds from towers in bad weather, from a trench in good. Lou has bunkers, and has used 2 old tower silos for storing sawdust for bedding. Kay Andrus is tearing down and burning two old wood stave silos "too costly to operate." Conrad Nelson has a trench that holds 1,000 tons. It has concrete sides and bottom, and he plans a sliding roof on a track. George Gadboy has two new tower silos, each 16' x 40'; with a mechanical unloader, and is building a 90' automatic bunk feeder with a roof.

On most farms where bunks or trenches are used, every load is leveled and packed with a tractor. Care is taken to keep out surface water, the top is kept high and covered with black plastic, commonly held in place with old truck tires. Squirrels have a "yen" for plastic, so it's often covered with sawdust or bedding to discourage them.

Some of the men I visited also put up grass silage. For example, John Wright alternates feeding grass silage with corn silage.

Many authorities have been slow to admit that dairy cows can do well year after year with silage (corn or grass, or both) as the only roughage.

There seems to be little definite experimental evidence on the question. I used to hear that cows just can't eat enough silage to meet their needs. Well, they can't if they are fed limited quantities only two or three times a day! Most of the men I visited have silage in front of the cows close to 24 hours a day.

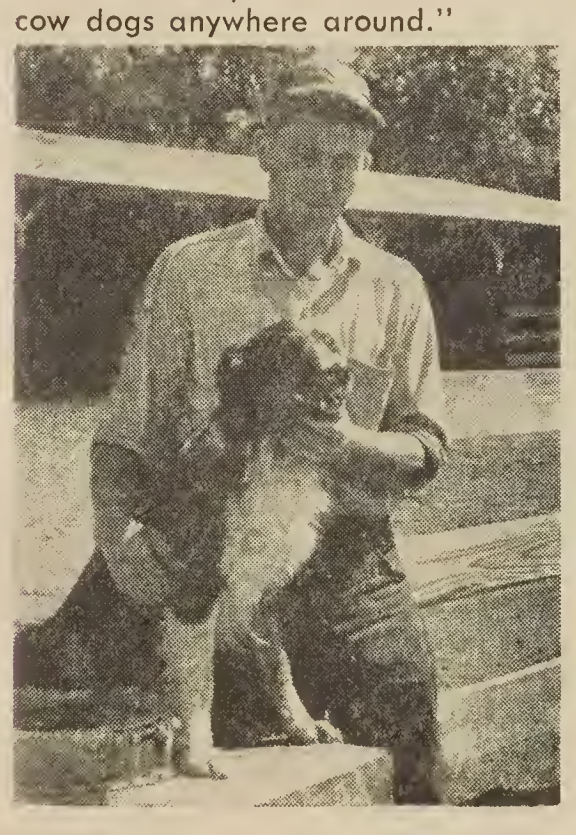
I should mention also that the cows I saw had very little pasture. Lou Longo's cows get about 25 percent of their feed from pasture for about 2 months in the spring. Most of the cows on the other farms had no pasture at all in the summer, they are fed either corn or grass silage, or greenchop grass, corn or other annual crops.

Don't forget that corn silage is relatively low in protein and minerals—a fact that should be considered when buying a grain ration.

You might well ask about milk production. I didn't get figures on all the herds, but had only to look at the cows to see that it was high. I did get a few figures: Art Hodges showed me a second calf heifer with a record of 15,750 pounds of milk and 610 pounds of fat. John Wright's herd of 40 Jerseys (getting no hay) increased fat production from an average of 313 to 513 pounds during the last two years. John gives better roughage much of the credit.

I would be the last to suggest that every dairyman should go to 100 percent corn silage for roughage. Conditions differ, and there are thousands of acres on good dairy farms not well suited to corn. I do say that growing more corn silage is worth considering and I look for the trend to continue.

Conrad Nelson, with "one of the best cow dogs anywhere around."



MUSKRATS AND MARSH MANAGEMENT

By Paul L. Errington

The author says: "This book is written for people to whom the following of a trapline means first of all a wholesome and enjoyable outdoor pursuit, plus some opportunity for monetary profit—rather than, first of all, a business venture." Trapping methods, management, and the habits of the muskrat are discussed fully, and there is a special chapter addressed to young trappers. Published by The Stackpole Company, Harrisburg, Pa. $5.00.



FAR LIGHTER...

BUT TOUGH AND RUGGED

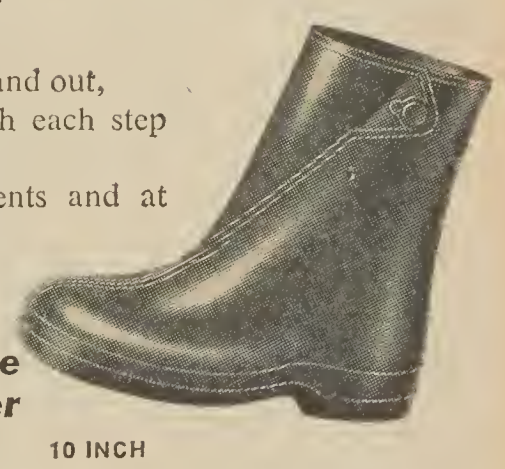
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Farmers Are Seeking More Marketing Power

ACROSS the nation farmers are taking a look at their marketing practices to see how they are keeping pace with changing times. Building market power for farmers — balancing supply with demand—are popular and important projects right at the moment. They may, in fact, prove essential to the existence of farming. As Charles B. Shuman, president of the American Farm Bureau Federation, says:

"Improvement in the farmers' market bargaining power might well be the next major development in the American agricultural revolution."

Agriculture has remained one of the few businesses that delivers its product to market with little or no advance assurance as to the price to be paid or the quantity that buyers will take. That the bargaining power of farmers will be organized some time—by someone—is without question. The point is, who will do the organizing—labor, government—or will farmers themselves do the job?

Strengthening the farmers' marketing position means consolidation of sales efforts, and to this end steps are being taken by farm bureaus across the nation. Recently organized is the American Agricultural Marketing Association, a cooperative venture sponsored by the American Farm Bureau Federation and designed as an overall service organization for the various farm bureau cooperatives, to furnish them information essential to proper sales negotiations.

In New York State a Farm Bureau program for growers of processing apples is well under way, with John Gold as manager of the New York Farm Bureau Marketing Cooperative. Similar programs are in process in Michigan, Virginia, West Virginia, Pennsylvania and Maryland. Asked what he expects of the cooperative, member Howard L. Baker of Ransomville, New York, says:

"I feel that the marketing cooperative gives the producers of agricultural commodities the opportunity to become a part of a national organization. I believe this is a 'must' if we are to operate successfully under the free enterprise system. By joining the New York Farm Bureau Marketing Cooperative, the farmer is given the opportunity to have a voice in pricing the product he produces.

"If the farmer is to have the respect due him in the organized world, he must be organized on an equal level with other groups."

According to Howard Baker, chairman of the New York Marketing Cooperative Apple Operators Committee, growers who last year produced 2½ million bushels of apples have already signed up this year in the marketing cooperative.

The New Jersey Agricultural Marketing Association was organized late in 1961, and chartered early in January of 1962, following a merger with the New Jersey Vegetable Growers Cooperative Association. The latter organization has been active for nearly twenty years in one way or another in bargaining efforts on tomatoes, asparagus and lima beans sold to processors. The objectives of the old Association continue, but the new Farm Bureau Cooperative is a stock corporation. In August, Mr. Neil E. Moore moved from Pleasanton, California, to assume the managership of the Association.

Describing this organization, an official of the New Jersey Agricultural Marketing Association commented:

"We in Farm Bureau believe that farmers want to do their own bargaining for price and for market conditions through their own organizations. The alternatives are almost unthinkable — labor unions, farm supply corporations, or the government! None of these offers the farmer a real chance of building bargaining power that **he** can control.

"Farmers are growing tired of being just 'price takers'—they want to develop ways and means to become 'price makers.' At the very least, they want to be **equal** in the marketplace with the buyers of their produce."

The Pennsylvania Marketing Association started with tomatoes, recently established an apple department, and within three months has under contract 200 apple growers, representing approximately 55 percent of the total processing apple production in the State. Commenting on the situation, Hollis Hatfield, secretary-treasurer of the Pennsylvania Farmers' Association, says:

"The farmer must understand the need for a strong bargaining group, and what can and can not be accomplished by such an organization. A farmer must also recognize that he **is** giving up some of his freedoms —but that he is giving them up to his organization, not to the U. S. government or to labor unions. We sincerely feel that the choices open to a farmer today are complete government operation of the farm — labor union operation of the marketing system—**or a marketing association where farmers bargain for price, quality, delivery conditions, and other factors.**"

Farm Bureaus in the major processing apple-producing states of Michigan, Virginia, West Virginia and Maryland have also organized similar marketing associations, and latest reports from these states indicate a good signup of interested growers. In fact, from Michigan—where member signup started late last summer—reports are that over 50 percent of the processing apple production has been signed up by the marketing association.

Through their own nationwide farm organization, the Farm Bureau, farmers throughout the country are being given the opportunity to run their own business. The final answer lies with the growers — in their willingness to give of their ideas, time and money by joining, and then helping to promote and sell the program to their neighbors.



SEL NOT SPEL

A newly hired traveling salesman wrote his first sales report to the home office. It stunned the brass in the sales department, because it was obvious the new "hope" was a blithering illiterate, for here is what he wrote:—

"I have seen this outfit which they ain't never bought a dimes worth of nothing from us and I sole them a couple hundred tousand dollars of guds. I am now going to Chicawgo."

Before the illiterate could be given the heave ho by the sales manager, along came this letter from Chicago:—

"I cum hear and sole them haff a millyon."

Fearful if he did, and fearful if he didn't fire the illiterate, the sales manager dumped the problem in the lap of the president.

The following morning, the ivory tower members were amazed to see the two letters posted on the bulletin board—and this memo from the president tacked above:

"We ben spending two much time trying to spel instead of trying to sel. Let's wuch thoes sails. I want everybody should read these letters from Gooch, who is on the rode doin a grate job for us, and you should go out and do like he done."

—Food Marketing in New England, Autumn 1960

Feeding Cattle

(Continued from Page 12)

cause, once they're ready to sell, it doesn't work very well to 'hold' them like you can steers. They will be ready for market 40 to 60 days sooner than steers of the same age."

Carl was also feeding dry-lot ani-



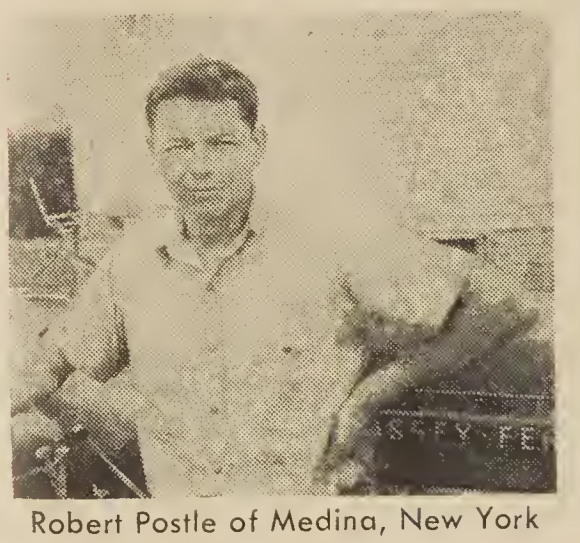
Carl House and son Robert.

mals about 12 pounds of grain per head per day. He likes calves that were born early in the year, would like bigger frames on feeder calves.

Diversified Farm

George Postle and his son Robert are sticking to considerable diversification on their 260 acre farm near Medina, New York. They have a sizable block of apples and a few cherry trees, grow 20 acres of canning factory peas, and 25 acres of wheat for seed. But the livestock program (beef and hogs) is very important.

The steers, mostly Angus, get homegrown feed. They have access to a pen-type barn and an adjoining



Robert Postle of Medina, New York

outdoor pen with an oil-soaked rope in the doorway for external parasite control. Indoors is an automatic bunk for feeding silage and grain, and overhead is storage space for hay.

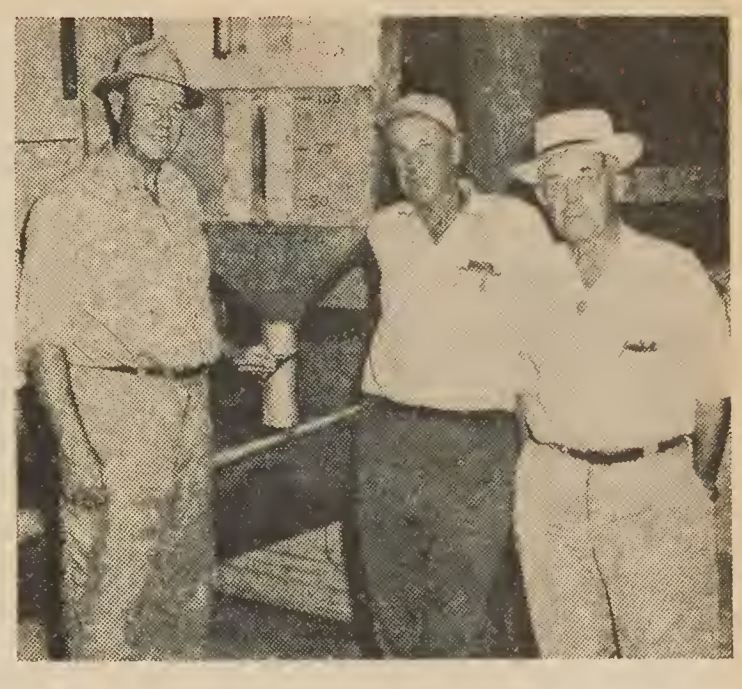
Shelled Corn

High moisture corn was also used at our next stop at the Dunham Brothers (Howard and David) near Knowlesville. Here, however, the corn was shelled in the field by a picker-sheller before going into a 20' x 40' Harvestore silo. Two concrete silos, a 14' x 45' and a 16' x 60', will be filled with corn silage from part of 195 acres grown this year.

The Dunhams were feeding some heifers for the first time, bought them last fall at about 440 pounds and plan to move them out at 800 pounds. Steers came in at the same weight as heifers, will go out at around 1,100 pounds. Calves are roughed through the winter on corn silage, hay, and about a pound of protein supplement apiece. For finishing, they get corn silage, about 15 pounds of corn and nearly 2 pounds of supplement apiece daily, plus hay.

Bob Martin, representing Empire Livestock Marketing Cooperative, Inc., and Producers Cooperative Commission Association, Inc., reported top market acceptance of cattle fed high-moisture corn. Myron Lacy reported research results showing that such corn is equal or superior to dried corn for feeding beef cattle. Bob also cautioned against feeding stilbestrol to heifers, saying that buyers will discriminate against them when they go in the sales ring.

The Dunhams also follow feeder cattle with pigs to salvage undigested corn. A feed bunk receives corn from the Harvestore, mixed with a pelleted supplement, all "pumped" by an auger through a tube.



Howard Dunham (left) and brother Dave (center) with fellow cattleman, Eugene Forrestal of Medina, New York.



. . . from Cooperstown, New York, Henry Dunning reports:

"Milk production goes up and up year after year with ABS Breeding"



Pictured are some of Henry Dunning's ABS Milking Daughters.

Mr. Dunning, left, and Greg Portzline, ABS affiliated technician.

"I started using ABS back in 1953, when my herd production was just 382 pounds of butterfat per cow," says Henry Dunning. "Now, my records show an average of 501 pounds of butterfat per cow — a 119-pound increase — and I can give the ABS Proved Sire Breeding Program a lot of credit."

Consistent use of the ABS Proved Sire Breeding Program, along with good feeding and management, has resulted in better-producing ABS Daughters each generation. Now 75% of the herd is ABS-sired.

DHIA BOX SCORE

Year	Cows	Milk (pounds)	Butterfat (pounds)
1953 (with no ABS Daughters)	17	10,900	382
1962 (with 24 ABS Daughters)	33	14,519	501
Increase, with ABS Daughters, good feeding and management		3,619	119

"I believe the ABS Proved Sire Breeding Program forms the foundation for a productive dairy operation," says Dunning. "Once cows are given the inheritance to produce, then it's up to me to feed and manage cows to get the most out of that inheritance."

Why don't you follow the example of Henry Dunning and thousands of other successful dairymen who follow the ABS Proved Sire Breeding Program? Ask your ABS Distributor about it. Tell him you want a copy of the "ABS Dollars and Sense Breeding Program." It's free for the asking. Or write —

GIVE YOUR HERD A PROVED SIRE FUTURE!

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PRODUCE — PRODUCE
Straw—Oats—3000 bales beautiful hay—Second cutting
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The Perfect Tour

Dec. 28, 1962 --- Jan. 27, 1963

IF A WINTER vacation is what you would like this year, you could not find a more fascinating one than our Hawaiian Tour! The dates are December 28,1962 to January 27, 1963—thirty-one golden days to remember always. Why not grasp this opportunity to travel with a friendly American Agriculturist party, and find out for yourself what a wonderful experience it is to go to Hawaii with us?

Gathering from various parts of the Northeast, we will go to Chicago for a tour of the "Windy City," and then board the Santa Fe Super Chief for our trip to the coast. There'll be sightseeing in the Los Angeles area and in San Francisco, and a special feature never before offered on our Hawaiian holidays — reserved seats in the grandstand for the Rose Bowl Parade on New Year's Day. Have you watched this gorgeous parade on television, wishing that some day you might be there in person to see the beautiful floats? Well, here is your chance!

We'll sail to and from the Islands on the Matson Line's palatial liner, the SS Lurline, embarking at San Francisco for the outward journey. We'll have five days aboard this lovely ship each way—a marvelous vacation in itself. You'll enjoy the wonderful meals, deck sports, concerts, movies, dancing, sun tanning, swimming in the pool, and the fun of relaxing in your deck chairs and chatting with new friends.

Fascinating Sights

We will visit four of the islands and see fields of orchids, a giant fern-tree forest, the crater of a volcano, majestic mountains, sugar plantations, historic Kona Coast, Captain Cook's monument, coffee plantations, pineapple fields, Waimea Canyon . . . scenes of unforgettable beauty and spectacular color . . . golden sunshine, the blue Pacific, white beaches of coral sand, tropical vegetation, and flowers everywhere.

We can't begin to tell you of all the interesting things you will see and do in the islands, and the fun you will have. About a month after returning from our 1962 tour, Mrs. George B. Schilp of Park Ridge, New Jersey, wrote us, "I am still dreaming of that delightful tour of Hawaii. In every respect it was perfect!"



Comfortable, spacious staterooms, wonderful meals, day-long entertainment or relaxation in your deck chair — these are all part of a trip on our ship, the "Lurline," which will take us to glamorous Hawaii.

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The cost of the all-expense ticket for this marvelous month-long trip is reasonable, and remember that it covers everything we could possibly include — all transportation, first class hotels, sightseeing, baggage transfer, all meals, tips, and of course the services of a friendly, competent escort who will handle all travel details and do everything he can to make it a perfect trip for each one who goes.

Ever since we announced our 1963 Hawaiian tour last month, requests for the itinerary have been pouring in, also early reservations from those who don't want to take a chance on waiting and finding the space filled. Why don't you use the coupon on this page and send today for a free copy of the printed itinerary, which will give you complete information about this delightful winter tour? And if you decide to come with us, as we hope you will, we know you'll have the time of your life and always be glad that you took the "perfect" tour to Hawaii—with American Agriculturist.

Mr. E. R. Eastman, President
American Agriculturist
Box 367-H
Ithaca, New York

Please send me, without obligation on my part, a copy of your illustrated Hawaiian Tour (Dec. 28, 1962-Jan. 27, 1963) itinerary.

Name _____

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With AMERICAN AGRICULTURIST Advertisers

Model A3 "Levl-Spred" grain leveler is made by LENNOX INDUSTRIES, INC., Des Moines, Iowa. It has a double cone and an automatic flow control arrangement that provides even distribution in the spreader wheel.

When used with a drying fan, the double cone does a thorough job of cleaning so that storage and in-storage drying can be done satisfactorily.

The COOPERATIVE G.L.F. EXCHANGE, Inc., Ithaca, New York, helped support more than 25 Cornell University research projects last year.

G.L.F. grants-in-aid, totaling over $90,000, are assisting New York State College of Agriculture scientists uncover information that may lead to healthier farm animals, more reliable yields of higher quality crops, more effective insecticides, and new and improved food products.

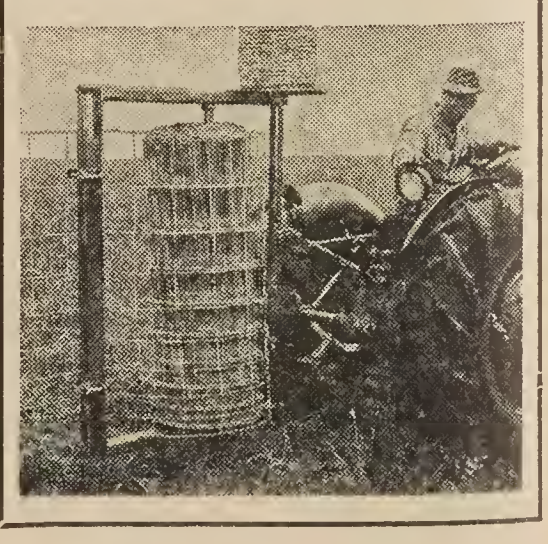
The problem of conveying and storing hay in a barn has long been a major one to most farmers. But to many farmers in upstate New York it is no longer a problem, solved by a unique and efficient conveyor system designed and built by a Watertown, New York, firm — LEWIS AND CLINCH. 1022 Railroad Street.

The L & C Conveyor is mounted inside the hayloft doors, either suspended from the ceiling joists or supported from below. Baled hay is raised to the level of the loft doors by an elevator, or by a supplemental L & C Conveyor unit. Once the hay bale has reached the level of the loft, paddles affixed to an endless chain move the bales to any section of the barn desired.

FORD MOTOR COMPANY, Birmingham, Michigan, has a 1,000-pound capacity loader with unusual single-boom design for easy mounting on tractor. Called the 722 Loader, it has an integral hydraulic system and a pump which is separate from the tractor's hydraulic system. One man can attach or detach the loader in a few minutes without special tools.

The latest scientific and practical information on feeding, breeding and management of dairy cattle is included in the eleventh edition of "Profitable Dairy Management" distributed by THE BEACON MILLING COMPANY, Dept. AA., Cayuga, N.Y. Commercial dairymen in the 13 northeastern states may secure copies without charge by writing directly to the company; outside this area a charge of $1.75 is made for each copy.

A new fence erector, at a cost that the average farmer can afford (slightly over $100), is now available. It attaches to any three-point hitch tractor; woven wire and barbed wire can be stretched at the same time. As many as four rolls of barbed wire may be stretched at one time if barbed wire is being stretched without woven wire. For complete details contact the EDMUNDS MANUFACTURING COMPANY, 1016 Battleground Avenue, Greensboro, North Carolina.





Molting -- Forced and Natural

Our fine feathered friends go through a time when they're not so fine feathered. Here are some pointers.

AROUND THE middle of October, and continuing through November, comes a fall molt and a slump in production of eggs on many poultry farms. This usually affects the early hatched pullets and comes during the first fall the birds are in laying condition. It should not be confused with the annual molt; this one only lasts four to six weeks; and when it is over the birds will come back into production and should lay well into the next summer and fall.

So, everything possible should be done to encourage activity at this time. **Above** all, **don't take away the mash;** this is needed for growing new feathers.

Birds are already subject to stress at this time; avoid all additional stress possible. Windows should be put in by late September or early October. The cold snaps that come along at this time make for severe stress.

Avoid drafts. If real hot days occur in the fall open the windows during the day, but be sure to close them at night.

Keep the birds eating and drinking. The use of lights should have been started in the middle of August, when days begin to get short.

There is difference of opinion about what causes the fall molt, if, indeed, anyone really knows the cause. Some believe it is the birds that lose weight during the first months of laying who go into the fall molt—but that doesn't explain why some birds lose weight while others gain and continue to lay.

At any rate, in spite of the fall molt, early hatched birds are still considered a good investment. They lay quite a number of eggs during the season of highest prices in most years, and give a more uniform quantity of eggs throughout the year.

Forced Molting

At this time of year, too, the decision must be made whether or not to carry over old hens. Some claim it is profitable; others that more money can be made from pullets.

If you have a market that pays a fairly large premium for extra large or jumbo eggs, there is much to be said for holding the old birds over. If not, it's questionable. Old birds don't lay as well as the pullets, and the egg quality is not as good, particularly if the birds molt naturally and don't get a good rest before coming back into production.

If you decide to hold over your layers for a second year of production, they should be force molted, and given a rest period of six to eight weeks. This will help them to produce for a longer period of time, and produce eggs of better quality. To force the molt, follow the suggestions below:

1. Turn off the lights (you may also need to darken the windows) and leave off for six to seven weeks.
2. Remove feed and water for one day.
3. No feed for second day, but give water during afternoon.
4. Feed grain only from third day until fourth or fifth week. Grain can be made up of liberal amounts of oats. Provide water at all times.
5. If full molt does not develop after first treatment, repeat first two-day treatment after one week.
6. After six weeks return to all mash.
7. At seventh week turn lights on, giving 14-hour day.

Incidentally, eggs from older hens are liable to have porous shells, and oiling will slow up evaporation.



Just in time for the 1962 Farm Census.

Latest Poultry Briefs

Nesting Materials — There will be much less (if any) need to wash eggs if fine nesting materials like calcined clay or perlite is used in place of wood shavings or peanut shucks, according to the Cornell University Poultry Department. Clay did a particularly good job.

Weather — Dr. J. H. Bruckner, head of Cornell's poultry department, feels that weather is responsible for much of the differences between California and New York poultry farms. Dr. Bruckner has recently returned from the West Coast, where 90 percent of the laying birds are housed in cages, as against 10 percent in New York State. Warmer climate permits housing costs in California to be one-third to one-half what they are in the Northeast.

How Big? — There is pressure within the poultry industry to change the egg weight standards. For example, the states of New York, New Jersey, Pennsylvania, and Louisiana have grades and standards that say a large egg weighs from 24 to 27 ounces per dozen. But in most of the other states the eggs are graded on the basis of a 23 ounce minimum.

Naturally, the states in the majority feel that the other four are non-conformists; on the other hand, New York, New Jersey and Pennsylvania contain more people than any other area of comparable size in the country—but they don't produce enough eggs to feed all of their people. When the eggs come from the Midwest they have to be repacked to meet the size standards of the Northeast states. Who will win?



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Here's all you do. Buy one box of GLF Milk Filters. Tear off the end of the box. Enclose it with one dollar and the coupon below. We'll rush this beautiful Cannon towel set to you at once. You'll be proud to own it, too. The towel is a man-sized 20"x40". Both washcloths are 12"x12". You can have your choice of yellow, pink, green or blue.

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Please rush my Cannon Towel set to me by return mail. I'm enclosing one dollar (no stamps) and a GLF Milk Filter box end, showing size purchased.

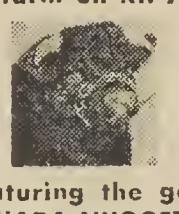
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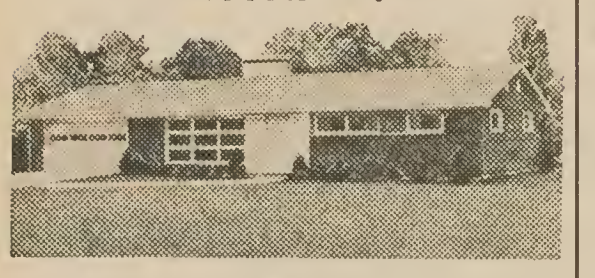
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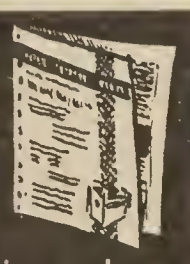
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NO HORNS!
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Dr. Naylor's DEHORNING PASTE

Cows Fed According to Their Output

By NYE FREEMAN

ON A DAIRY farm at Spencer, N. Y. a research project is underway on the farm of Claude Ames.

The photograph above shows a "Milk-O-Meter," a device that notes the amount of milk produced by each cow and measures out so many ounces of feed for each pound of milk. The amount can be added to or withheld by the operator as desired. The "Milk-O-Meter" is the white mechanism at the left; the dark dial and white pointer at top right indicate the "Feed-O-Meter."

To make his farm a family-sized operation, Claude Ames had converted to loose housing, milking parlor, and bulk tank. The change was a good one, but with one serious disadvantage—the cows didn't have time to eat sufficient concentrates while being milked. They lost condition, and didn't regain it in time for their second lactation.

Claude had this problem on his mind when he attended the 1961 New York State Fair, so naturally was attracted to the Milk-O-Meter

and Feed-O-Meter exhibits. His obvious interest and questions were noted, and the manufacturer's representative informed him that they and the G.L.F. were looking for a dairyman to cooperate with them on a research project exploring the possibilities for extra milk production from additional TDN in early lactation.

The project has been successful, and Claude is fully satisfied with results. One key feature of the system is that the feed is made quite wet in the manger, which enables the cow to eat it rapidly and to consume the desired amount. Grain consumption per cow has been as high as 20 pounds during an 8-minute period.

The problem of how much to feed the cow to get best production from her is one that concerns all dairymen, and this project will be followed with much interest.

Milk Supply Control in Florida

THE FLORIDA Milk Commission presently operates in five milk marketing areas which include 56 of the State's 67 counties.

Base fixing period in these areas is September through November, except in the Tampa Bay Area which has November, December and January as its base fixing period. During the base building period, a producer establishes a base with his distributing plant in the ratio of his deliveries to the total deliveries of all the plant producers. For instance, if a plant's receipts during the 92 day period in the Tampa Bay Area total six million gallons, and producer "A" had delivered 50,000 gallons, his base percentage would be .00833.

This base building period had a tendency for producers to increase their herds in order to produce more milk. In some instances there developed "base races" between producers, and a producer not participating often lost base. Such action on the part of the producer resulted in surplus milk and the condition continued to exist even after the base period had ended.

The Commission took action in 1958-59 by adopting a "base freeze" order to curtail this surplus production. Presently all producer bases are frozen and each producer is furnished a projection by his distributor setting forth his required projection to meet the plant's Class I needs.

It is true that some producers exceed their quotas as projected and accordingly have the surplus milk utilized at prices lower than for Class I milk. This results in a lower blend price to the producer which is his only penalty.

Presently the Commission has adopted an order allowing a distributor to petition the Commission to curtail production of his producers when producer receipts exceed 115% of the plant's Class I needs.

It is the consensus of opinion that the base freeze has curtailed surplus milk production. The base allocations have kept milk production somewhat in line with consumer demands.

—E. V. Fisher, Administrator, Tallahassee, Florida

Gallon Jugs Moving In

(From The Dairy Chat Newsletter of July 26, 1962)

A DEALER in New Jersey is offering customers "cash and carry" milk in gallon jugs at 87 cents, and in half gallons at 44 cents. These prices, lower than the established minimums by 15 and 8 cents respectively, are contingent upon the abolition of the State's price controls.

This action is another application of the technique used successfully in markets in Massachusetts and Rhode Island. In these markets a dealer or dealers set up dairy stores selling milk in gallon and half gallon containers at a significant saving over the home-delivered price. The State moved to make them conform with the established minimums. The dealers deferred to the State's orders, issuing coupons to be

(Continued on Opposite Page)

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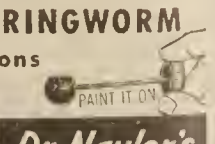
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Decision Against Potato Producer For $53,609

THERE'S A big legal battle going on between a Steuben County, New York, potato producer-dealer and a potato wholesaler in Pennsylvania. An order has been handed down by a USDA judicial officer that requires the grower to fork over $53,609.50, plus interest, for breach of contract.

Briefly, cutting out all the legal terminology, the grower delivered potatoes to the wholesaler from October 19 to November 11 ($7,700 worth) and received no payment. On November 16, he called up the wholesaler and asked how come. The latter, according to testimony, replied that he was withholding payment believing that the grower didn't have sufficient potatoes to meet the contract.

Well! the fur flew and the wind blew! The grower sent a letter on November 16 canceling the contract for non-payment. On November 18, the wholesaler telegraphed that, "We are ready and willing to make any payment of anything due you if you signify your willingness in writing not later than noon November 19 to fulfill contract. If not, we recognize your anticipatory breach and we will proceed to fulfill contract in open market and hold you liable for any damages sustained." To make a long story short, buying potatoes in the open market (prices had risen) cost the wholesaler nearly $54,000 more than would have been the case if the contract had been fulfilled.

Testimony at the hearing revealed that the grower had already shipped potatoes on September 25, 26, and 28 —all paid for October 17, after an elapse of 19 to 22 days. Another series of shipments made on October 5, 6, 12, and 13 were paid for on October 24—from 11 to 19 days later. The eight unpaid shipments starting all the shooting were made between October 19 and November 11; from 6 to 29 days elapsed between the shipping dates and November 16 when the grower canceled the contract. On cross-examination, the grower admitted he had never objected to the time elapsed for the loads prior to the last eight.

The hearing examiner therefore concluded that, "This course of dealing indicates that payment and delivery were not concurrent conditions. Moreover, even if they were concurrent conditions, (the grower) waived the right to insist on payment at the time of delivery of the potatoes or the invoices by consistently accepting delayed payments. Under these circumstances, (the grower) could not cancel the contract without giving (the wholesaler) a reasonable time within which to pay for the potatoes delivered and not yet paid for."

Implied in this finding is the possibility that a farmer forfeits his right to cancel a contract for nonpayment unless he vigorously demands payment just as soon as delivery is made. This, even though section 122 of the Personal Property Law of the State of New York provides that, unless otherwise agreed, delivery and payment are deemed to be concurrent. One thing for sure — it's a good idea to draw up a contract in which **payment terms are specifically mentioned** (no such mention was made in the contract involved in this case).

Surely there is another lesson here —don't fly off the handle, because it's liable to come up under your chin. Better check carefully before you unload on a person with whom you're doing business, no matter how satisfying it may be to give him the works. Check with a good lawyer before the die is cast—instead of afterwards.

AMERICAN AGRICULTURIST will follow this case as it goes to the courts for appeal and let you know what is decided.

GALLON JUGS MOVING IN

(Continued from Opposite Page)

redeemed when and if the minimum price laws were overthrown. In each state minimum prices were abandoned, the coupons were redeemed, and gallon jug "cash and carry" marketing is an established method of distribution.

There is no doubt of the appeal of lower prices, especially to mothers of young families, who are the heaviest milk users. There appears little doubt that wherever gallon jug stores are established they will become a factor in the market—usually engendering severe price wars in the process.

At the present time, Cumberland Farms, which operates numerous gallon jug stores in Massachusetts and Rhode Island, is building a plant in Portsmouth, New Hampshire. It is safe to assume that following the procedure applied in Massachusetts and Rhode Island, Cumberland will challenge the New Hampshire minimum retail prices, and probably successfully.

The growing importance of the gallon jug in fluid milk distribution is indicated by the fact that in April of this year there was more milk sold in gallon jug containers in the Chicago market than in any other size. The Chicago federal milk market administrator reports that in April a total of 69,306,000 pounds of milk was sold in gallon units while 66,492,000 pounds were sold in half gallons, 15,406,000 pounds in quarts, and 10,445,000 pounds in pints, one-third quarts, and half pints.

By way of contrast, in 1949 11.3 percent of the packaged fluid milk in the Chicago market was sold in gallons, while in 1962 42.9 percent of the fluid milk was sold in gallons. Half gallons showed a gain from 23.3 percent to 41.1 percent, but had peaked at 42.1 in 1961. Quarts dropped from 58.8 percent in 1949 to 9.5 percent in 1962. Smaller units stayed about the same, being 6.5 percent in 1962.

CHAIN SAW SAFETY TIPS

HERE ARE safety tips to observe when using a chain saw:

Use wood or magnesium wedges in felling, they will not damage the chain.

Shut off the engine except when the saw is actually in use.

Even though you may be in a hurry, stop the chain while your partner does the wedging.

Wear heavy shoes or boots that have non-skid soles.

Never stand to the side of your saw. "Look, Ma—no hands!"

Put the chain saw on solid ground or a log while starting the engine.

Do not wrap the cranking rope around your hand. Little engines can "kick" too!

Be sure the chain of the saw will not catch on anything lying or growing behind the tree or log.

When felling a tree, choose your escape path in advance.

Inspect trees carefully for loose limbs, rot, etc., before starting to cut. Once the saw is going you cannot hear the cracking of a rotten limb.

Snuff out the "weed" while filling the fuel tank.

Fill the fuel tank only over bare ground.

Do not fill the tank while the motor is still very hot.

Do not start the motor before the tank is filled.

Keep the muffler on and in good condition.

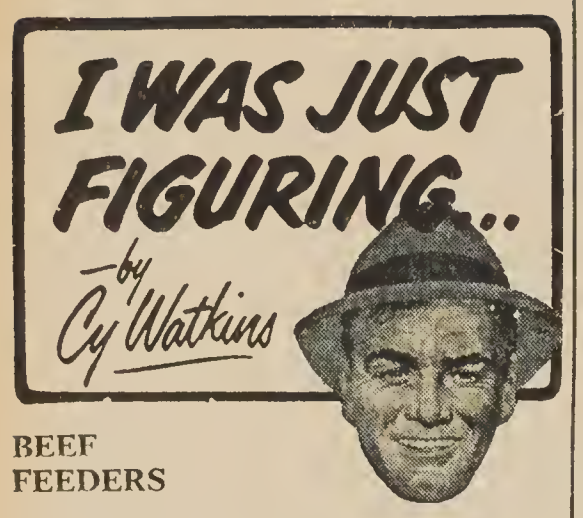
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BEEF FEEDERS

What About Vitamins?

It wasn't too many years ago that most nutritionists said it wasn't necessary to supplement beef rations with extra vitamins . . . that natural sources provided "enough".

The trouble with their theory was that it didn't hold up too well in feedlot tests. In trial after trial, the animals that got supplementary vitamins did better. Often it showed up in faster gains, or better feed conversion, or possibly better health.

This led nutritionists to take a new look at their theory, and they found out that conditions are apt to occur in a feedlot that kind of put a new light on things.

For instance, take Vitamin "A". Why do you need a supplemental source of Vitamin "A".

First: Vitamin "A" oxidizes easily. Roughage that was loaded with Vitamin "A" 6 months ago may have little or none now.

Second: Now there is a great deal of evidence that roughages grown under certain conditions may have a high carotene content, but it is "locked up" chemically by nitrates, so it is not free to be used. So while a chemical assay may show plenty of carotene . . . a biological assay may indicate there's not much Vitamin "A" available. You might say it's there to look at, but not to use.

Third: Much evidence now suggests that ruminants need to be in a Vitamin "A" positive condition to be able to convert carotene into Vitamin "A" efficiently. So if they go into a feedlot **short** of Vitamin "A", this very fact prevents them from fully utilizing the carotene that is available.

Fourth: Stress conditions increase the need for Vitamin "A", over and above what used to be considered "normal" requirements.

In each of these situations, the Vitamin "A" supplied in Watkins MIN-VITE for Beef solves the problem. (1) Watkins Vitamin "A" is protected against oxidation. (2) Watkins "A" is available . . . not "locked up" because it IS Vitamin "A", not carotene. (3) Watkins "A" availability is not limited by the condition of the animal. Even a very deficient animal can utilize all of it.

But in the case of Vitamin "A", as in the case of other vitamins in Watkins MIN-VITE for Beef, you don't have to be a nutritionist to appreciate the evidence you get when you give it a test in your own feedlot. The superior performance, the money saved, is obvious. The Watkins program for beef feeders pays off handsomely . . . in gains, feed conversion and health. I hope you'll talk it over with your Watkins Dealer, next time he calls.

WATKINS PRODUCTS, INC. NEWARK, N. J.

Readers Tell Us!



WANTS NEW START

I am serving a one to five year term in the State correctional institution in Attica, New York, for grand larceny. This is the first time I have ever been in any trouble, and I know it will be my last. My trouble came from drinking, and the fact that I just wasn't as grown up as I thought I was.

Since I came here I made up my mind to plan a decent new life for myself. I have been taking correspondence courses through the Penn State University in dairy cattle and farm management. I have also been going to Church every Sunday and I spend some time each day reading the Bible. I am working on the farm here, and I have a string of cows to milk. I was brought up on a farm and always worked on one. I am married and have one son three years old.

I have come to realize my mistakes and want very much to correct them and to start a clean new life for myself and family. I meet the parole board this month and may be released the 26th of November. The parole officer said that everything looks good for me, and that the main thing for me to do was to try and get a job turned in. I was told that you might be able to help me along the line of getting employment. I am 23 years old and of the white race, in perfect health, and willing to work. **—Jack Raymond Hussey, No. 17990, Box 149, Attica, New York**

Editor's Note: One of the miracles of living is the possibility of picking up the pieces of our lives and building anew from the wreckage of our yesterdays. We want to help any person determined to attempt this, but we recognize the pitfalls that may exist and the disappointing experiences suffered by many who have tried to help under similar situations.

We at American Agriculturist don't have sufficient information to make any endorsement of the person who appeals here for help. We recommend a thorough check, by anyone interested in hiring him, with his parole officer and others well acquainted with him.

WE GOOFED!

In your August issue under the caption "AA's Farm Dollar Guide," you categorically state—"If you cut hay on diverted acres this year you will get no government payment . . ."

The facts are that any farmer is allowed to **cut** hay on diverted acres without reduction in payment, providing his local county committee has previously approved of this practice.

Furthermore, if a farmer **harvests** hay on diverted acres, with the permission of his county committee under Secretary Freeman's declaration of the county being a disaster area, his payment is reduced only by the value of the hay removed.

In neither of the foregoing cases does the farmer lose his government payment if all he does is cut hay and not remove it. — *J. J. Sugden, Chairman, New York ASC State Committee, Himrod, N. Y.*





Winners At Caledonia Show

SINCE 1950, an annual livestock show (now called Meat Animal Show and Sale) has been held at the Empire Stockyards at Caledonia, New York. Here are the top winners in this year's event:

At left is Charles Fitzpatrick, Wayland, N. Y. with his Champion 4-H lamb. Robert Hunt, Ithaca, had the Reserve Champion; the Champion pen of lambs was owned by Kevin Simpson, Caledonia; and the Reserve Champion pen by Robert Hunt.

The Grand Champion 4-H Steer of the Show was exhibited by Juanita Kennedy, Holley, N. Y. (pictured with her Shorthorn), while William Welcher, Newark, N. Y. had the Reserve Grand Champion.

In the hog division, the Champion was owned by Raymond Walton, Pavilion, N. Y.; Reserve by Howard Sinclair, also of Pavilion. The Champion and Reserve 4-H pens were exhibited by Charles Tyler, South Byron, N. Y., and Raymond Walton of Pavilion.

The Champion open

(Continued on Opposite Page)

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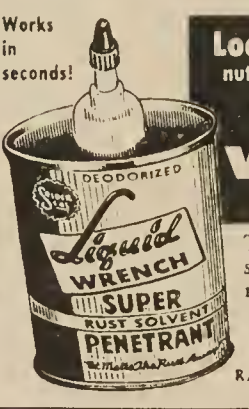
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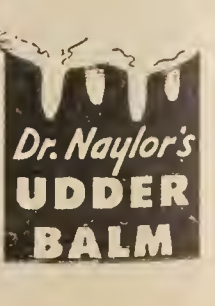
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Scientists Report Research Progress

AT THE LAST Annual Research Conference of Chas. Pfizer & Co. Inc., scientists from the various colleges of agriculture throughout the country reported on many developments and much progress made during the year 1961 along the lines of animal nutrition, veterinary research, etc.

Dr. J. K. Loosli, of the Animal Husbandry Department at Cornell University, reported that with the general interest in high level grain feeding for lactating cows there is increasing need for a re-evaluation of the energy requirements both for lactation and during the dry period. Studies have shown that cows fed 8 pounds of grain during the dry period produced over 300 pounds **more** milk during the first 15 weeks of the next lactation period than cows fed only roughage, even though the latter ration provided more energy than recommended by the National Research Council. Feeding extra grain toward the end of lactation and none to the dry cows did not stimulate milk yield.

Feed Additives

Dr. W. M. Beeson of the Department of Animal Science at Purdue University, speaking of the effects of stilbestrol, said; "When antibiotics are fed alone, there is no change in carcass quality. But antibiotics definitely improve carcass grade when fed with stilbestrol."

In a recent summary of 20 experiments with beef cattle on fattening rations, he reported that antibiotics improved both gains and feed efficiency by 6 percent each; stilbestrol alone increased gains 12 percent and feed efficiency by 6 percent; and a combination of antibiotics and stilbestrol boosted gains by 17 percent, feed efficiency by 12 percent. Tests at Purdue have shown that feeding a combination of an antibiotic and stilbestrol upgraded the carcass from 47 percent choice (no antibiotic) to 72 percent choice.

A report from the Kentucky Experiment Station has shown that a combination of Terramycin and stilbestrol implant is superior to stilbestrol alone for steers grazing on pasture. The daily gain of control steers was 1.07 pounds; of steers administered 24 mg of stilbestrol implant 1.37 pounds; and of those given stilbestrol plus Terramycin 1.59 pounds.

In his remarks on recent developments in avian diseases, Dr. H. L. Chute, Department of Animal Pathology at the University of Maine, commented that leukosis undoubtedly accounts for the greatest single disease loss to the poultry industry. Research has been slow over the past 25 years, and much fundamental knowledge is still needed; recent work has indicated that a laboratory test by using the Rous sarcoma virus will detect carrier hens.

Apple Pie Contest

THE big day in the Apple Pie Contest sponsored by New York State Grange and American Agriculturist is almost here! The state finals, in which the 53 county champions compete, will be held October 30 at Syracuse, New York, during the annual session of State Grange. All counties have now held their Pomona contests, and here are the six counties we had not heard from last month:



FLOYD BESWICK
St. Lawrence Co.

POMONA WINNERS

WINNER	COUNTY	GRANGE
Mrs. Clara Case	Chautauqua	Fredonia
Mrs. Ethel Sperl	Herkimer	Paines Hollow
Mrs. Kate Wise	Jefferson	Lorraine
Mrs. H. Ungleich	Madison	Nelson
Mrs. R. Chesbro	Niagara	Pekin
Mr. F. Beswick	St. Lawrence	Madrid

As you will notice, Floyd Beswick of Madrid Grange No. 962 is the winner in **St. Lawrence County.** Brother Beswick's pie won over twenty other entries!

Mrs. Lucile Mathewson, Service and Hospitality Chairman in **Chautauqua County,** writes, "We were very pleased with the results of our Apple Pie Contest. We had 26 entries out of a possible 34, and had no trouble selling the pies after the judging was completed."

This year at State Grange, we are planning to again have an exhibit of the prizes being given the top 10 state winners by eight AMERICAN AGRICULTURIST advertisers. Plan now to come to Syracuse and see these prizes and hear the winners announced on Wednesday morning, October 31.

Just think what a thrill it would be to hear your name called out as the champion Grange apple pie baker in New York State! And you could very well be, you know.

Good luck to each of you, and I'll be looking for you in Syracuse.

—Augusta Chapman, Home Editor

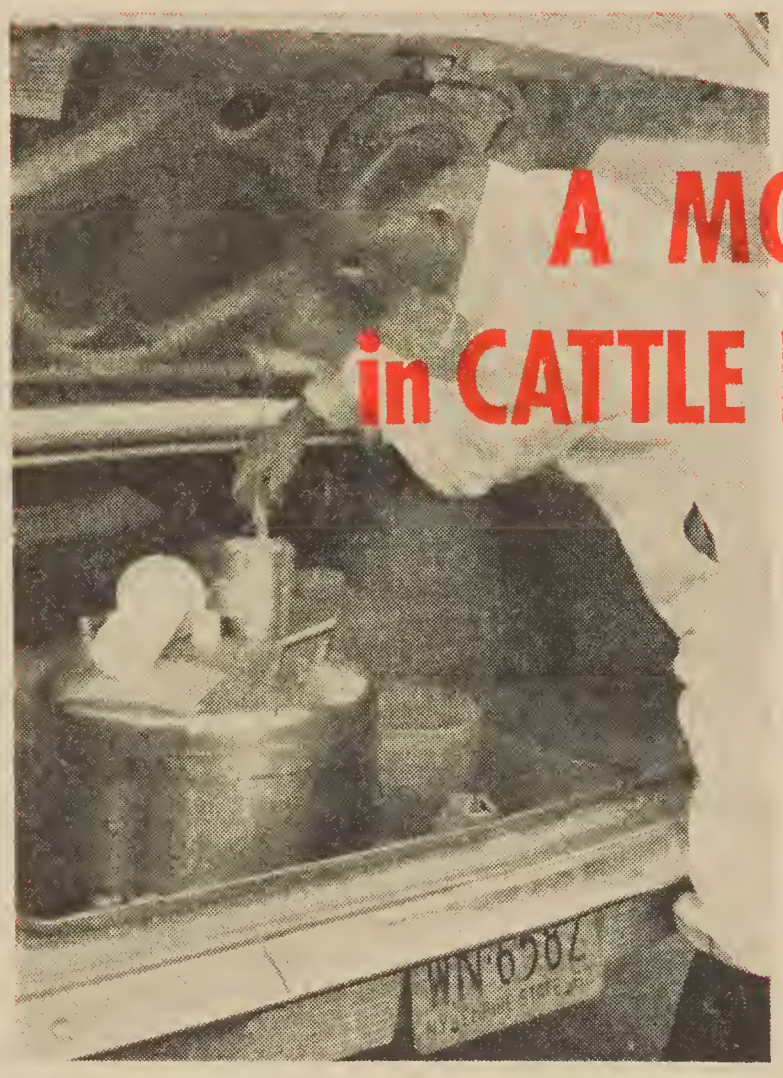
WINNERS AT CALEDONIA SHOW

(Continued from Opposite Page)

class pen of lambs was shown by Shamrock Farms, Wayland; Reserve Champion pen by George Bancroft, Dansville, N. Y.

The Champion open class pen of three steers and also the Reserve Championship pen of three steers were shown by Orin Kelkenberg, Clarence Center, N. Y. Champion open class pen of hogs was shown by Fred Olmstead, West Bloomfield, N. Y.; Reserve Champion pen by Edward Giera, Stanley, N. Y.

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PUBLISHING AND CLOSING DATES

November Issue Closes Oct. 5
December Issue.....Closes Nov. 5
January Issue.....Closes Dec. 5
February Issue.....Closes Jan. 5

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WISCONSIN DAIRY COWS—new arrivals each week. Good deal for every dairyman. Cash or credit. Free delivery—one cow or a truckload. If you are interested in adding good cows and improving your dairy herd you will be calling the right man. I am interested in building up a good reputation with the dairy farmers of your community. Call collect for appointment. Reuben Greenberg, Inc. Columbus, New Jersey, 3 miles south exit 7 of the New Jersey Turnpike. Out of State use area code 609. Phone 298-1021 or 298-1664.

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10 REGISTERED BROWN Swiss heifers, ages from 1 to 2 yrs. Reasonable. Irving Peck, Elnora, New York.

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REDUCTION SALE — choice of bred cows, cows with calves, open heifers. No Sunday sales. L. W. Hollis, Lacona, N. Y.

SWINE

REGISTERED Yorkshire Sale: 80 head. 40 Bred Gilts, 20 Open Gilts, 20 Service Boars. Another of our Annual Fall Bred in the Purple offerings of select individuals. National Champion Bloodlines; Red meat certification; feed efficiency data. Friday, October 5, 1:00 P.M. EDT. Beaver Community Fairgrounds, Beaver Springs, Pennsylvania. We invite commercial hog producers as well as purebred breeders to see this high quality offering. Brooks End and Par Kay Farm, Beavertown, Pa. Snyder County on U. S. Route 522. Write for free catalog: Reno H. Thomas, Sale Mgr., Phone Olympia 8-6719 Beaver Springs Exchange.

REGISTERED TAMWORTH swine, ready to go first of Oct. 8 weeks old, Cholera vaccinated (modified virus) boars, unrelated gilts. Carlyle Tilyou, R.D.#1, Sinclairville, N. Y.

REGISTERED BERKSHIRE weanling boars and gilts by National Champion. Special prices on groups. Service age hoars and feeder pigs. Richard Crye, Avon, New York.

REGISTERED YORKSHIRE service boars, weanling boars and gilts. Arthur Gabrielse. Lyons, N. Y. WH6-4730.

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REGISTERED SOUTHDOWNS and Cheviots, rams and ewes. Fred Carnes, R.#3, Ithaca, New York.

LARGE REGISTERED yearling Suffolk rams and ram lambs. 2 or more 100 miles free delivery. Russell Luce, Groton, N. Y.

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NAA THIRD ANNUAL Appaloosa Sale, October 20, 8 P.M., State Fairgrounds, Syracuse, N. Y. Mares, stallions, geldings; top bloodlines. For catalog: Barbara Esengard, Durhamville, New York.

NICE PAIR CHESTNUT Belgian mares very closely matched, full sisters, 8 and 9 years old. Broke the best both single, double for all kinds farm work. Weight 3600 lbs. Must sell, have no further use for them. Earle A. Noble, Seneca Castle, N. Y. Phone Stanley LY-6-4353.

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DEALERS WANTED

Use Your OVEN and BROILER

By Alberta D. Shackelton

ON A BUSY day let your oven or broiler help you prepare dinner. Oven or broiler meals are especially nice to avoid that last minute rush, and the same amount of fuel cooks several foods. At mealtime add a quickly assembled salad or one made ahead, relishes from refrigerator or kitchen shelves, your favorite boughten bread or rolls, and dinner is ready for your hungry family.

Oven Dinners

The secret for cooking successful oven meals is to choose foods which bake at the same temperature and for about the same length of time. If your oven boasts an automatic oven control, you can even put your dinner in the oven two hours ahead of time. Also, if your oven is large enough, you can tuck in an extra dish to be used for another meal. Collect some of the inexpensive and attractive oven-to-table cooking ware available in various sizes, shapes, and colors to help you cut down on dishwashing time. Below you will find two oven dinners which I have adapted from suggestions from the Extension Service of the New York State College of Home Economics at Cornell University.

Oven Dinner No. 1: Oven-fried Chicken with Lemon Barbecue Sauce, Oven-Steamed Rice, Carrot-Stick Casserole, Cranberry Crunch. (Add tomato juice or lettuce salad with Russian dressing, and French bread.) Temperature: 350° F. Time: about 1 hour.

OVEN-FRIED CHICKEN WITH LEMON BARBECUE SAUCE

½ cup flour
2 teaspoons salt
¼ teaspoon pepper
2 teaspoons paprika
1 3-pound broiler-fryer, quartered
¼ cup butter, melted

Combine flour, salt, pepper, and paprika in a paper bag. Shake the chicken quarters in the bag to coat lightly with the flour mixture. Arrange the chicken, skin side down, in a single layer in a buttered baking pan or cookie sheet (with rim) about 13 x 9½ x 2 inches. Brush with the melted butter. Bake in a moderate oven (350°) for 30 minutes. Turn the chicken and cover with Lemon Barbecue Sauce. Continue baking 30 minutes longer or until fork tender. Serves 4.

To make the Lemon Barbecue Sauce, combine 1 clove garlic, minced (if desired), ¼ teaspoon salt, 2 tablespoons salad oil, ¼ cup fresh, canned, or reconstituted frozen lemon juice, 1 tablespoon chopped onion, ¼ teaspoon pepper, ¼ teaspoon thyme.

OVEN-STEAMED RICE (FIORENTI STYLE)

2 cups chicken broth, heated
2 tablespoons butter, melted
½ cup minced onion
1 cup long grain rice
1 teaspoon salt (omit if broth is seasoned or bouillon cubes used)
⅛ teaspoon pepper

Saute the onion, rice, salt, and pepper in melted butter, stirring constantly until rice turns golden brown. Add the hot chicken broth and place in a 1½ quart casserole. Cover and bake in a moderate oven (350°) about 20 to 30 minutes or until all broth is absorbed and rice is tender. Serves 4 to 5.

CARROT STICK CASSEROLE

4 medium carrots, peeled and cut in thin strips
½ cup water
½ teaspoon salt
2 tablespoons butter

Place carrots, water, salt, and butter in a 1-quart casserole. Cover and bake in a moderate oven (350°) about 50 to 60 minutes or until carrots are tender. Serves 4.

CRANBERRY CRUNCH

1 cup dry quick-cooking oatmeal
½ cup flour
1 cup light brown sugar
½ teaspoon baking soda
½ teaspoon salt
⅓ cup butter
2 cups whole cranberry sauce

Combine oatmeal, flour, sugar, baking soda, and salt. Cut in butter to make crumbs. Starting and ending with the crumbs, alternate layers of crumbs and cranberry sauce in a greased 8-inch square pan. Bake in a moderate oven (350°) about 1 hour. Serve with whipped cream, whipped cream substitute, or ice cream. Serves 6. Note: Sliced apples may be used in place of cranberry sauce.

Oven Dinner No. 2: Oven-browned Fish Fillets, Easy Scalloped Potatoes, buttered frozen peas, asparagus, broccoli, or green beans (to be cooked top stove while finishing dinner preparations), your favorite Baked Prune Whip. (Add Waldorf Salad and crusty rolls.) Temperature: 350° F. Time: about 45 to 60 minutes.

Note: Add to oven a pan of baked apples for next day (to finish baking while dinner is being served).

OVEN-BROWNED FISH FILLETS

2 pounds fish fillets, cut in 6 serving size portions
2 teaspoons salt
½ cup milk
1 cup finely sifted dry BREAD crumbs (other crumbs do not brown evenly)
1 teaspoon paprika
4 tablespoons salad oil

Mix salt with milk. (For added flavor, add a bit of thyme, minced onion, or Worcestershire sauce.) Add paprika to crumbs in another bowl or on waxed paper. Dip the fillets first in milk, then in crumbs, then arrange fish, side by side, in a well greased shallow dish about 10 x 6 x 2 inches. Drizzle the oil over the fish. Bake in a moderate oven (350°) for about 30 minutes or until the fish is golden, easily flaked with a fork, but still moist inside. When not cooking this fish as part of the oven meal, you may bake it in a very hot oven (500°) for 10 to 15 minutes. Serves 6.

EASY SCALLOPED POTATOES

1 can condensed cream chicken or mushroom soup
1 cup milk
4 medium potatoes, peeled and THINLY sliced
2 tablespoons chopped green pepper
1 medium onion, sliced
1 teaspoon salt
¼ teaspoon pepper
2 tablespoons flour
2 tablespoons butter

Combine the soup and milk. Arrange layers of potatoes, green pepper, and onion in a greased 1½ quart casserole. Sprinkle combined salt, pepper, and flour between the layers. Pour soup-milk mixture over all. Add more milk, if necessary, to cover potatoes. Dot with butter. Cover and bake in a moderate oven (350°) for 30 minutes. Uncover and bake about 30 minutes longer or until potatoes are tender. (Note: Potatoes will cook quicker if soup-milk mixture is heated before adding.) Serves 4.

Broiler Dinners

Hot meals are so easy with a broiler, for many good food combinations, requiring little ahead-of-time preparation, can be cooked quickly. For best results choose meats that are tender, with enough fat for natural basting. Don't limit your choice to the more expensive steaks and chops, but use chopped meats, frankfurters, small young chickens, cured meats like ham and bacon, variety meats as liver, kidneys and sweetbreads, and oily fish. Veal is not fat enough to broil, and for the most part thorough cooking of fresh pork takes too long for broiling.

The main part of a meal can be done on a broiler with the rest of the meal prepared ahead of time and waiting in the refrigerator. An entire meal can be broiled by placing cooked vegetables in the bottom of the broiling pan, and putting meat to be broiled on the rack. The vegetables will be flavored while heating with the juices from the meat. When you turn the meat, complete the meal by placing on rack some fruits requiring shorter time to broil.

If foods are kept simple, the grill in most ovens is large enough to prepare food for 4 persons. If you are lucky enough to have a two-oven stove, main part of meal may be broiled in one oven and remainder of meal in the other one.

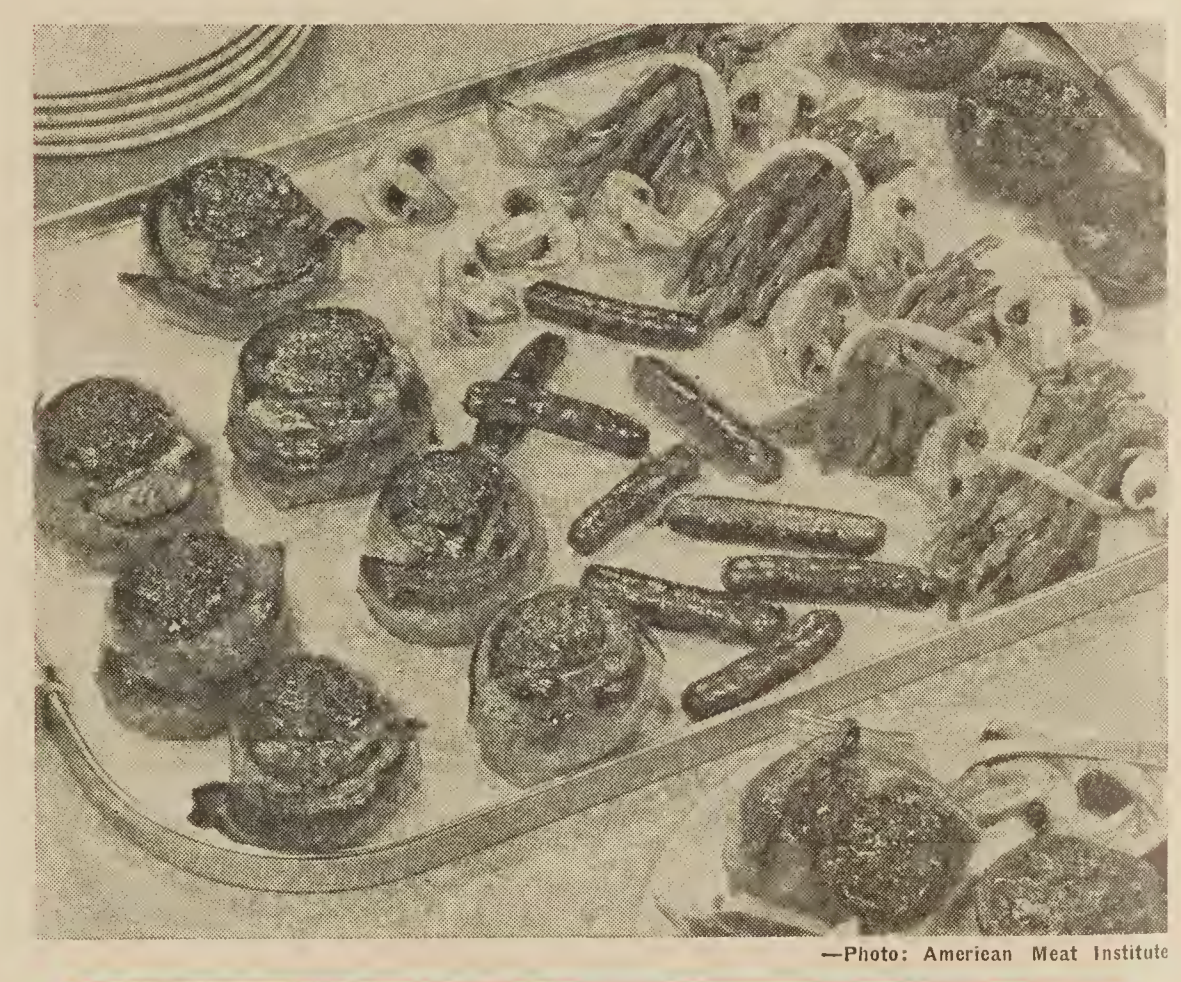
Follow stove manufacturer's directions for the use of your broiler, or preheat for 10 minutes. Place food that takes longest time on broiler first, and then add other foods, so all will be ready to serve at the same time.

Broiler Dinner No. 1: Mixed Grill of Rib or Round Bone Shoulder Lamb Chops **OR** Lamb Patties circled with strip of bacon, Brown and Serve Sausages, Paprika Potatoes (small canned or cooked), Herb Broiled Tomatoes, Minted Peach Halves. (Add tossed salad and sherbet for dessert, if you wish.)

If you use chops, cut fat edges in several places and place in one corner of grill rack over pan. Place potatoes in nest of foil and brush lightly with butter and sprinkle with salt, pepper, and paprika. Broil about 10 minutes, 4 inches from heat. Season chops and turn. Turn potatoes and repeat seasoning. Arrange Brown and Serve Sausages and prepared tomatoes on rack. To prepare tomatoes, cut in halves, score tops, sprinkle with soft bread crumbs mixed with salt, pepper, a little thyme and sweet basil, and dots of butter. Broil 5 minutes. Arrange peach halves topped with mint jelly on rack. Broil 5 minutes more.

Broiler Dinner No. 2: Ready-to-eat ham slice **OR** ham patties **OR** thick slices of pork and ham luncheon meat, thick slices cooked or canned sweet potato, cooked green beans, rings of pineapple with garnish of spiced crabapple, or spiced apple slices, or small red spiced pear.

Cut fat edge of ham slice, if used. Place cooked green beans in bottom pan of broiler and adjust rack. Arrange meat, potato slices, and pineapple rings on rack. Brush meat with orange juice, and potatoes and pineapple with melted butter. Broil 5 minutes, 3 to 4 inches from the heat. Turn ham slice and brush with more orange juice. Place garnish on top of pineapple ring, brush with butter and broil 5 minutes more. Add a relish platter and lemon pie or tarts, if desired.



—Photo: American Meat Institute

Pictured above is a Mixed Grill combining lamb patties circled with strips of bacon, pork sausage links, mushrooms, and broiled tomato halves. Cooked green beans were placed on the bottom of the broiler pan to be heated and flavored as the meat cooked.



VISITING

with

Home Editor Augusta Chapman

HI, and a happy Indian Summer to each of you. Did you manage to get away for that vacation this year? I hope so, and that you did whatever your family enjoys most, and that you had a lot of fun.

The Chapmans love to travel, and we enjoy camping, so for the past seven or eight years we have combined the two activities quite successfully with the help of a travel trailer. At first we had a small, homemade affair, but this wasn't dependable enough to venture farther afield than the nearby State Parks or, by pushing our luck, the Adirondack area. Then, as our boys grew older (and especially, taller), we needed more room, so started shopping for something larger and more rugged.

We looked at every make and model travel trailer we could find, comparing the features each one offered and the price tags. In 1959 we decided that a 16-foot Shasta was the one we wanted, and I don't know of any investment we've ever made that has given our family more pleasure.

This year we didn't get as far from home as we usually do, but we spent a very enjoyable week at Allegany State Park in Cattaraugus County and some time at beautiful Wellesley Island State Park on the St. Lawrence. Allegany is the largest of the New York State Parks, having approximately 60,000 acres. Tent and trailer sites are relatively few in comparison to the number of cabins in the Park, but new areas are being developed, and there's plenty of space for expansion.

It seems that nearly every State Park provides some sort of wild life for the campers' entertainment. At Allegany it was plump, well-fed coons that came to raid the garbage cans every night when fires had burned low and many people had gone to bed. Then, at Wellesley Island we had the tamest wild turkeys imaginable! Returning to camp one afternoon after a drive in Canada, we saw several of these large birds parading on the grass island that separated the two lanes of traffic at Canadian customs, just across the Thousand Island Bridge. They strutted around as if they had to look over each car before allowing one to pass in either direction!

I imagine that camping is something you're either pretty well sold on or that you want no part of. We love cooking and eating outdoors, swimming, lying on a sandy beach in the sunshine, popping corn over a campfire at night, and getting acquainted with the friendly folks we find at every park and campsite. And with the increase each year in the number of families who go camping, many of you must feel the same way about it.

While we're talking about vacations, here's a word from a good friend of yours who has been on a **real** vacation. Mabel Hebel, former Home Editor of American Agriculturist, sailed for Europe early in May and will be coming home just about the time you read this column. She and a friend have traveled through England, Holland, Austria, Switzerland, Italy, and France.

From Geneva, Switzerland, Mrs. Hebel wrote, "The day we flew down here from Amsterdam was clear and sunny, and we had a marvelous view of the snow-covered Alps and Lake Geneva. This city is beautiful, but too big and crowded now with traffic. I was here previously in 1929 and 1933, when it was not so crowded. Today, the representatives of all countries come here for disarmament and other conferences, and bring their wives and families. Many are at our hotel. We are situated right on the Rhone River, which is a vivid green and **races** through the city on its way from Lake Geneva to the Mediterranean.

"Today we took a bus trip to Annecy, France, and it was fun going through French customs. They were kind to Americans, but put some others through the wringer. One girl (French, I believe) was especially examined. An agent opened her purse and looked at everything in it. He also examined her jacket and went through the pockets. Then, coming back, two dark-skinned men were taken off the bus by French customs, and we didn't see them again!"

Sounds wonderfully exciting, doesn't it?

There are a lot of things I had hoped to squeeze into our visit this month, but space has run out. Maybe we can get together again in November. Then I will be back from our Farm Home Editors' Convention in Washington, and should have a lot of exciting, new products to tell you about. See you soon.



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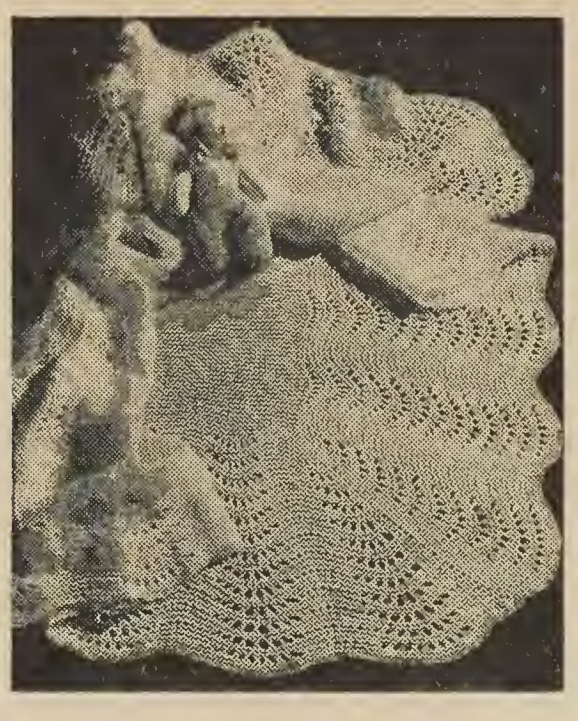
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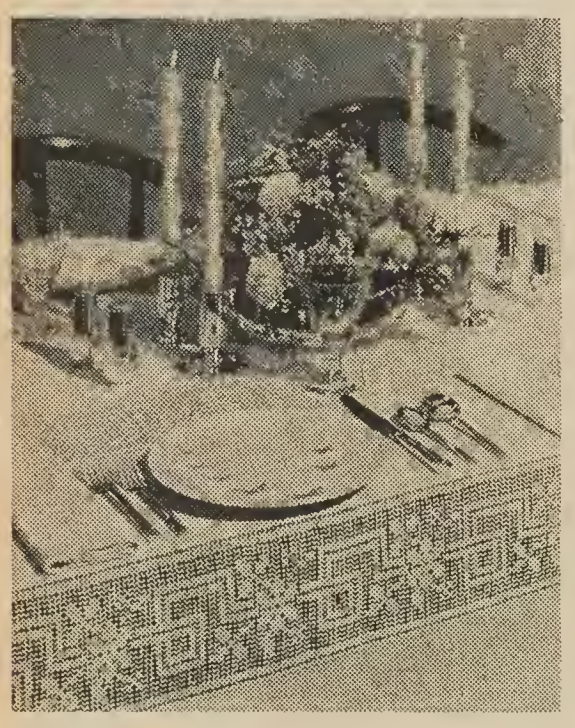
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SHADE TREES AND THE DROUGHT

By NENETZIN R. WHITE

WE ARE ALL aware that many counties in New York State were declared disaster areas by the U. S. Department of Agriculture this summer, for it has been the driest season in the history of local weather stations. By now, you may have adjusted to the drought and given your plantings up for lost. It is still possible, however, to help our shade trees in their struggle to survive the abnormally dry season, and our efforts will be well worth while.

First, let's remember that a normal shrub or tree has just about the same moisture content as our own bodies, better than 90 percent. Furthermore, a tree with, say, a 50-foot spread, will lose 25 to 30 barrels of water every day by evaporation (or, in tree talk, transpiration). A small apple tree bearing fruit will lose 6 to 7 barrels a day. If the water needed just isn't there, or if the supply diminishes rapidly, branches wilt and die, and in time the whole tree dies. Because this process is very slow we can't see the damage until it's too late.

Large shade trees have been growing for many years, and their root systems have adapted to a fairly stable water level. Since this level has been far below normal, it is impossible for new roots to form fast enough or go deep enough to provide all the moisture necessary to maintain adequate transpiration in the abnormal heat we have had.

The quiet, desperate struggle for survival is evidenced by nothing more dramatic than wilted leaves at the tips of branches. If drought conditions continue, the plant lives on water stored in its tissues, just as a man would. When this reservoir is exhausted, the tree literally burns up. Unfortunately, the permanent damage that results from severe drought doesn't usually show until the following year, when whole sections fail to bud.

What We Can Do

First, the remaining water supply in the tree itself must be built up, and then the supply in the surrounding soil must be returned to normal. You can build up reserve moisture in the soil anytime before heavy frost seals the soil surface, but the sooner you restore the water content in the soil, the better for the plants.

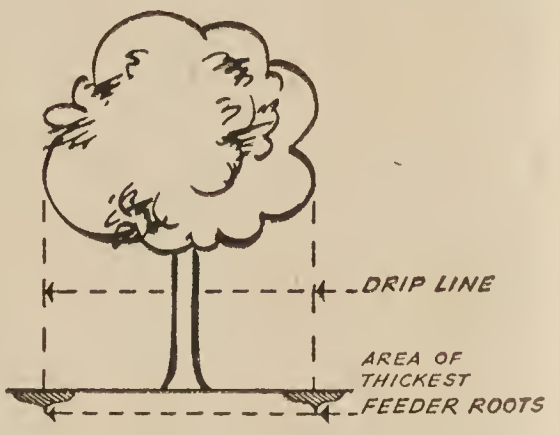
The best way, of course, is for the Good Lord to cooperate and give more rain than is normal for this time of year. The next best way is to soak the general area well. Some people think a good soaking consists of 5 to 10 minutes with a hose. This is peanuts to a tree. Use a canvas "Soil Soaker," or one of the plastic or rubber seeping hoses. Turn it on about half-pressure and leave it in one location all day or all night.

You can repeat this operation at weekly intervals in particularly dry spots, such as corners around your house foundations, under heavy groves of pines or shade trees, or on the tops of steep slopes. It will take a long time to put back the tremendous amounts of water lost through transpiration this summer.

Trees and plants are very much like people in the sense that a weak or run-down plant seems to fall victim to all sorts of diseases. A drought-stricken plant is obviously in a weakened condition. Assuming that you have done everything possible to remedy the water situation, the next logical step is to provide food to strengthen the plant, and to provide humus and mulch in an attempt to hold as much rainfall as possible for later use by the plant. Anytime after the leaves have started to fall is a good time to feed.

How to Feed

There seems to be a lot of confusion about the feeding process, which is actually very simple. First, the food should be at a depth where it is available, and, second, it should be where the greatest number of roots is concentrated. To get the food down where we want it, we use a soil auger, which is just a big brother of the bit used in an electric or hand drill. We also often use a plain crowbar. With either of these tools, make holes 18 to 20 inches deep, and approximately the same distance apart. These holes should be placed in a band around the tree, as shown in the shaded area on our sketch. The width of this band depends upon the size of the tree. A tree only a couple of inches in diameter, for instance, would require a



band perhaps 2 feet wide (two rows of holes), whereas a tree 2 or 3 feet in diameter would require a band 10 to 12 feet wide.

Ohio State experts say that for each inch of diameter of the tree trunk, you should use 5 pounds of a 10-6-4 complete plant food, or its equivalent. A 10-inch tree, on this basis, would use 50 pounds of 10-6-4. Use your good judgment as to how many holes you'll need, figuring on filling them to within 6 inches of the top.

It isn't necessary to fill the holes with soil unless you object to the looks, for your sod will usually fill them in rapidly. Besides, in our normal clay soils around here, the holes provide much-needed aeration. It's a good idea to flood the filled holes with water after you have finished, to give some of the food a chance to move laterally in the ground. A feeding as outlined above should be good for a 3 to 4 year period.

A tree's life depends on three essentials beneath ground level, food, water and air. Frequently, this last factor is ignored. Insufficient air to carry on underground life processes is responsible for killing many trees along our highways and around new buildings, when soil or fill has been added. I've seen 10 or 12 inches of fill over their root systems. The idea that you can build a "tree well" of stones around the base of a good sized tree and then fill in with debris and soil is a fatal assumption. The feeding and active roots are not near the base of the tree, but way out

(Continued on Page 47)

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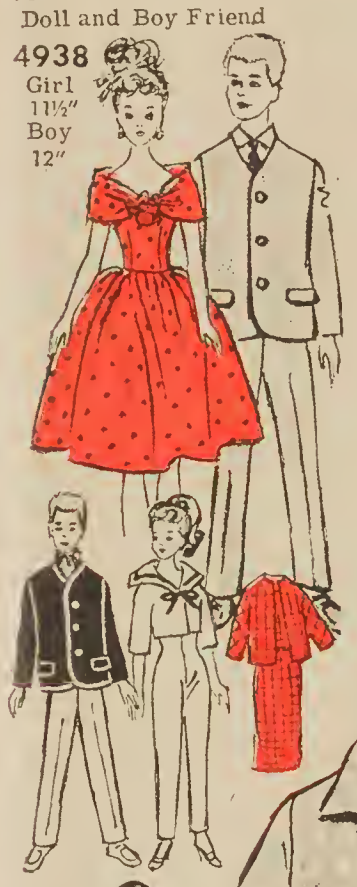
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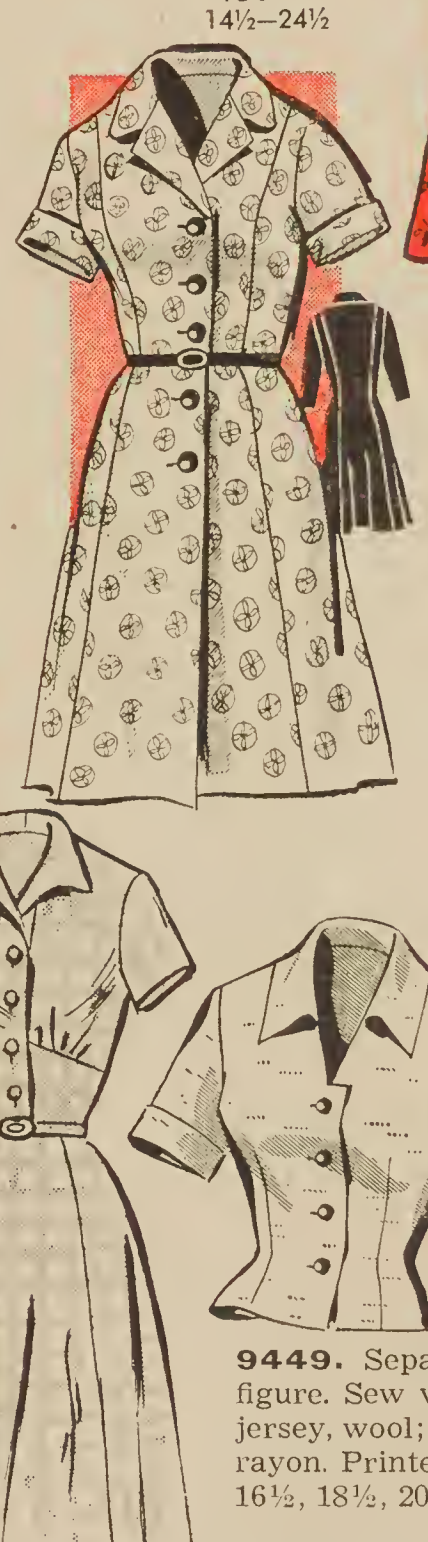


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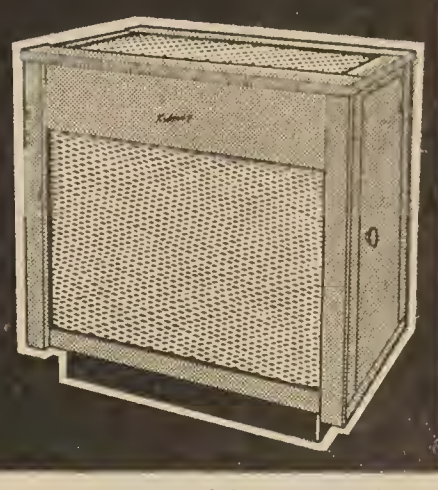
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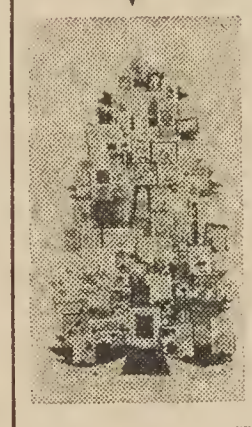
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Ed Eastman's Page

WANTED!

Do you happen to have any photographs (not magazine or paper picture clippings) of old-time home or farm scenes that you would be willing to lend me for possible publication? I will guarantee safe return and will of course give credit for any pictures used.

Such photos or snapshots might include:

Any of the summer or winter **vehicles** of the horse and buggy days; old-time farm and household **tools,** especially if the picture shows them in use; an old-time **baseball game** in action; a **pack peddler** with his pack on his back or a **tin peddler** with his cart; a **country auction;** a **scarecrow;** a **sap-house** with steam overhead; a **traction engine** in use or on the road with its water wagon and thresher attached; an old-fashioned **smoke-house** with smoke coming out of the top; and pictures that will illustrate old-time **housecleaning time** — like a man or boy beating a carpet on a clothesline.

There are many other subjects, but the above suggestions will give you some idea of what I might use. **Photographs or snapshots should of course be clear and suitable for reproduction.**

If you have any you think will help me, I will appreciate very much your writing me about them. Address: E. R. Eastman, 515 North Tioga Street, Ithaca, N. Y.

IT'S A BLESSING

DID YOU ever think what it would mean to New York or any other large city if the food supply was completely shut off for two weeks or more? There would be rioting, bloodshed, and chaos.

Few people realize how dependent they are in these modern times on the regular production and distribution of food. We are right out on a limb. Even farmers are now mostly dependent on purchased food.

But it was not always so. Each farm family raised most of its own food and fiber and processed them in that wonderful laboratory, the farm kitchen. Only the small surplus not needed by the family was sold or traded at the distant village store for the few extra staples that the farmer could not grow himself.

Of course none of us has any desire to return to those conditions—at least not all the way—but it does make me a little tired to hear all the complaint and criticism about farmers' producing too much, and about our surplus. We Americans don't realize how thankful we should be to have so much and such a variety of delicious foods. We would realize it quickly enough if we lived in Russia, China, India, Cuba—in fact, in most other countries of the world.

It's time we realized that surplus food is a blessing to the consumer —not a curse. Old Khrushchev envies our food situation more than anything else.

SMART DAIRYMEN!

HATS OFF to a group of dairymen in northeastern Ohio who have launched a big advertising campaign to offset the decline in milk consumption. This comparatively small group is raising $400,000 to promote the sale of milk in Cleveland, where their product is marketed.

Every time I listen to the dangerous and extensive advertising of cigarettes on television, my blood pressure goes up. Cigarettes have definitely been proved to be a health hazard; and they have nothing really to advertise and talk about compared with milk. Their advertising is the same old gibberish about filters and mildness — while milk has almost everything in its favor.

Something **is** being done, of course, by the National Dairy Council and the American Dairy Association, and these organizations are getting real results. But it is only a drop in the bucket compared with what **should** and **could** be done if the dairymen would give milk advertising more support. The **surplus could be knocked out** almost overnight; **prices to farmers** would go up.

Dairymen might as well face it! Unless they **do** advertise their product in a really big way, they face government controls that will restrict their production and their freedoms!

October

I have a friend who, thinking that he was tired of our long, cold winters in the Northeast, sold his home and moved to California. After a year or so, he sold his property there and moved back again. When I asked him why, he said, rather sheepishly:

"I got darn tired of sunshine all the time, and I missed our changing seasons here, so I came back!"

There are many of us, cuss our weather here as much as we may, who would feel the same way. Sunshine is wonderful, of course, but like every other good thing it can be overdone, especially when there is not a rain once in a while. Summers in the tropics are just not the same as they are here.

I can't imagine living out my days where I could never again see the Resurrection of Life as it is here in our wonderful Northeast country in the spring. And by the same token, how I would miss our falls, especially October.

There is no other place in America, nor in the world, where nature paints the colors and the pictures as she does here in the Northeast in October. What can be more beautiful, I ask you, than a forest of beech, maple, elm, oak and the other deciduous trees that clothe our hills ablaze with the millions of colors of October?

Helen Hunt Jackson put it in poetry when she wrote:

When on the ground red
apples lie
In piles like jewels shining,
And redder still on old stone
walls
Are leaves of woodbine twining:

When comrades seek sweet
country haunts,
By twos and threes together,
And count like misers hour by
hour,
October's bright blue weather.

O suns and skies and flowers
of June,
Count all your boasts together,
Love loveth best of all the year,
October's bright blue weather.



HOW'S YOUR HEALTH?

NOW THAT WE are approaching winter with its cold weather, it is more than ever necessary to do what we can to prevent illness.

In spite of the fact that farm people are exposed to more sunshine and fresh air, and get much more exercise, surveys show that they are not as healthy as other people. What are some of the things that farmers and their families can do to prevent illness?

Overweight and Wrong Eating

Doctors and nutritionists are unanimous about the necessity of keeping weight down and eating a balanced diet. There is just one sure way to control fat, that is, **to eat less.** Older people should eat more protein—and less starches, sugars, and fats.

Lifting

In spite of modern machinery, farmers, especially those over fifty years of age, do too much heavy lifting. Try to figure ways to avoid all the lifting that you can. Otherwise, you may end up as I did — with a hernia.

Overwork

I believe that work is the salvation of mankind, especially of young people. But when you get overtired, particularly if you are middle age or older, you are asking for trouble. A nap—even if only for a half-hour right after the midday meal—not only is good for your health but will enable you to do a better job in the afternoon.

Shots

Modern medicine has developed some excellent disease-prevention devices like vaccines for polio, colds, tetanus and tuberculosis. You will be smart to talk with your doctor about them, just as you will be smart also if you get a complete physical examination at least once in every two years.

It costs money, you say? Of course it does—but what about the losses caused by long illnesses—to say nothing about the inconvenience and unhappiness?

EASTMAN'S CHESTNUT

A MOUNTAIN BOY was late for school, so the teacher asked him for his excuse. He said:

"Well, I'll tell ye. Maw woke Paw up in the middle of the night 'cuz she heard a noise in the henhouse. Paw sleeps in the raw, but he grabbed his gun and went outside. He had it pointed toward the henhouse, waitin' for somethin' to happen. Our old hound dog came up behind him with his cold nose—and we've bin cleaning chickens since three o'clock this mornin'."

Service Bureau

ADDRESSES WANTED

George Hawker, who lives somewhere in Pennsylvania. The party who sold him a heifer about 2 years ago has a few to sell this year.

* * *

Do you know the whereabouts of: James Billings who had a brother, Tom, and sisters, Harriet, Annie, and Mary (called Mollie). He should be in his sixties and may be living in Ohio.

* * *

Any descendants of John Williams, who formed the Williams Woolen Company in 1836 at Watertown, N. Y.

* * *

Robert B. Houck, formerly of Box 236, Sussex, N. J.

CAN YOU HELP?

Mrs. Howard A. Heroth, R. D. 2, Box 143, Fort Plain, N. Y. would like to buy a large size cookie cutter with a deep scalloped edge.

* * *

Wanted: Information from old diaries, letters or town records of the cultivation and use of rhubarb by farm families in the years 1770-1800. Please write Mrs. Arley C. Clark, R.D. 1, Union, Me.

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Miss Madeline Canevari, Millerton $8.00
(refund on order)
Mr. Neil Winch, Strykersville, ... 6.05
(refund on order)
Mr. Jesse Van Sickle, Pine Island 40.00
(payment on bad check)
Mr. Jack Ellmauer, Youngsville 210.00
(payment for hay)
Mrs. Richard W. Barnes, Norwich 100.00
(property damage)
Mr. Chas. Zemaek, Campbell 35.85
(insurance refund)
Mrs. Howard J. Coons, Climax 6.34
(refund on order)
Mr. Alpha Smith, Jr. Fort Plain 15.00
(refund of fee)

PENNSYLVANIA

Mrs. Marion Clark, Tunkhannock 125.00
(insurance settlement)

NEW JERSEY

Mr. Ray Dill, Jr., Old Bridge 140.00
(refund on radio)
Mrs. Barton Carter, New Egypt 75
(refund on repairs)

MASSACHUSETTS

Mr. Leroy Taylor, E. Pepperell 15.00
(property damage)

CONNECTICUT

Mrs. Rose Dalfonso, Colchester 25.00
(damage claim)

SHADE TREES AND THE DROUGHT

(Continued from Page 44)

under the "drip line," illustrated on page 44. Filling can be done, but it has to be a rather carefully engineered job. If the soil under your tree is hard and compact, it should be loosened frequently to allow proper aeration. Addition of peat moss, humus, sawdust or some organic compost will help preserve both moisture and aeration.

As you examine your trees to see if there are signs of unhealthy conditions, you may find that leaves are undersized and yellowish, or they may be rather thin and sparse compared to other trees of the same variety. There may be dead or dying branches and the annual growth, which is almost complete as you read this, may be stunted and dwarfed. If the last is true, next year's buds will also be stunted and dwarfed. Decide now if your shade trees need help in getting the moisture, food, and air needed to assure their continued usefulness and beauty.

Arm Caught in Field Chopper



Trying to clear the machine of jammed corn stalks Roy Hughes of Tioga, Pa. met sudden tragedy. Leaving the power take-off running he jiggled the stalks. As they quickly fed into the machine he was thrown off balance and pulled in also. Struggling for his life he tore his arm from the rollers. With a badly mangled arm severed at the wrist joint he walked to the barn for help.

Spending thirty-two days in the hospital and undergoing surgery Mr. Hughes ran up heavy expenses. He carried three North American policies which paid a total of $2932.50 for loss of arm and medical expense benefits. Receiving checks from local agent Jerry Taylor, Mr. Hughes gave this letter of thanks:

"I have always thought that insurance is a good thing. That is why I have kept my policies renewed and added more when my local agent Jerry Taylor would stop by.

"It seemed though, I was paying out quite a lot every year. Now, I realize the cost was not much for all the benefits my policies paid.

"In this day of modern machinery you cannot afford to be without plenty of this insurance."

Roy Hughes

A Friend's Name May Be in this List.

Virginia Plauth, Altamont, N. Y. 1,010.00
Fell—fractured shoulder
Archie Keenan, Belmont, N. Y. 1,146.45
Cut hand in field chopper
Hiram Blakeslee, Maine, N. Y. 247.43
Kicked by cow—fractured left forearm
Wayne E. Neudeck, West Valley, N. Y. 412.53
Using field chopper—cut fingers
Charles Whitehead, R. I, Auburn, N. Y. 339.27
Pinched hand on combine levers
Thomas Marshall, Aurora, N. Y. 427.12
Butted by heifer—injured knee
John Dybka, Cherry Creek, N. Y. 210.71
Thumb caught in field chopper
George Vondracek, Cayuta, N. Y. 449.81
Kicked by cow—serious leg injury
Cecelia Kiser, Horseheads, N. Y. 445.27
Auto accident—fractured shoulder & ribs
Morris Bartholemew, Pitcher, N. Y. 139.00
Caught in grain drill—broke leg
Michael Hanson, Old Chatham, N. Y. 221.42
Tractor accident—fractured arm
Adam Vormwald, Tully, N. Y. 567.00
Auto accident—whiplash to spine
Frank L. Martin, Delhi, N. Y. 410.72
Crushed by cow—injured back
Jerry Zitz, Jr., Red Hook, N. Y. 312.61
Tractor accident—injured head, ribs
Theodore E. Domes, Chafee, N. Y. 724.15
Fell from barn door—broke vertebrae
John E. Finnegan, Moira, N Y. 117.14
Crushed by cow—injured shoulder
Ralph Anderson, Constable, N. Y. 150.00
Fell—bruised hip and leg
William Vosburgh, Jr., Gloversville, N. Y. 1,079.86
Fell off tractor—injured back
Paul Biskupich, Sr., Greenville, N. Y. 202.86
Kicked by cow—injured leg
Arthur Huxtable, Richfield Springs, N. Y. 683.59
Kicked by cow—fractured ankle
Homer Hobbs, Black River, N. Y. 569.80
Fell from combine—injured leg
Aaron E. Widrick, Lowville, N. Y. 548.36
Slipped on ice—injured back
Leland Andrews, Piffard, N. 215.00
Hit by pole—fractured leg
Charles J. Palmer, Canastota, N. Y. 498.02
Kicked by cow—fractured leg
John F. DeRoos, Fairport, N. Y. 267.84
Kicked by cow—injured back
Wendell Adams, Churchville, N. Y. 375.00
Knocked down by sheep—injured knee
Mary Korona, Ft. Johnson, N. Y. 252.86
Kicked by cow—injured leg
Mildred Smith, Niagara Falls, N. 439.53
Auto accident—injured arm
Luther P. Wheeler, Whitesboro, N. Y. 1,350.00
Auto accident—fractured leg, bruises & cuts

Louis Ireland, Marietta, N. Y. 1,260.00
Caught hand in corn picker
L. Robert Brink, Naples, N Y. 669.25
Truck accident—injured shoulder, bruises
Stephen Uszenski, Slate Hill, N. Y. 344.99
Kicked by cow—injured foot
Fred Sommerfeldt, Holley, N. Y. 1,083.28
Auto accident—cut face, fractured jaw
Clara Whittemore, Oswego, N. Y. 1,052.86
Fell—broke knee cap
R. W. Halbert, Gilbertsville, N. Y. 1,340.00
Caught hand in reel of wagon
Seth VanGuilder, Troy, N. Y. 430.45
Knocked down by telephone pole—broke ankle
Emerson Race, Canton, N. Y. 1,215.42
Mortorcycle accident—broke leg, injuries
Clifford J. Trippany Chase Mills, N. Y. 156.54
Pushed by horse—fractured ankle
Cleo V. Chichester, Middleburg, N. Y. 1,112.30
Auto accident—injured chest, face, eyes
Ronald Newberry, Alpine, N. Y. 369.56
Auto accident—fractured ribs
Edward R. Powell, Interlaken, N. Y. 1,457.00
Caught hand in corn picker
Robert Lamphier, Canisteo, N. Y. 250.00
Kicked by cow—fractured ribs

Keep Your Policies Renewed

I. Theodore Bonkoski, Long Island, N. Y. 1,123.48
Caught in combine shaft
Gertrude M. Hornung, Roscoe, N. Y. 100.00
Hit ankle on chain—injury
Earl Clark, Berkshire, N. Y. 282.71
Auto accident—injured back
Edward F. Carpenter, Dryden, N. Y. 775.75
Fell—fracured leg
Arthur Crose, Kerhonkson, N. Y. 286.28
Crushed by cow
Gary Balcom, Whitehall, N. Y. 112.96
Concussion in gym class
Gladys N. White, Marion, N. Y. 1,213.60
Fell—broke hip
Andrew Almeter, Strykersville, N. Y. 1,005.00
Thrown from tractor—injured head & shoulder
John M. Murphy, Penn Yan, N. Y. 1,318.85
Slipped cleaning stable—injured back
Marie L. Baldwin, Rome, N. Y. 352.40
Slipped on wet grass—fractured leg

John Putnam, Prattsburg, N. Y. 281.92
Fell—injured knee
Lewis DeVelder, Newark, N. Y. 275.00
Fell thru hay chute—broke leg & heel
Leanora M. Bliven, Schenevus, N. Y. 412.97
Auto accident—injured nose, arm, back
Woodrow Doty, Jr., Warwick, N. Y. 991.10
Auto accident—broke kneecap, cuts
Raymond Sitterly, Amsterdam, N. Y. 770.00
Auto accident—inj. head, neck, back
Harold Lawton, Lowville, N. Y. 650.10
Attacked by bull—injured ear, hand
George Raeder, Grand Gorge, N. Y. 479.03
Fell on concrete floor—fractured skull
Kenneth Wolfe, Allegany, N. Y. 266.57
Slipped getting off tractor—injured back
Daniel Desmond, Milan, Pa. 250.00
Truck accident—injured leg, ribs & shoulder
Meade L. Zimmer, Covington, Pa. 1,084.00
Fell—broke hip
Milton G. Peake, Wellsboro, Pa. 1,350.00
Auto-truck accident—frac. arm & hip, bruises
Roman P. Leofsky, Spring Creek, Pa. 1,260.00
Kicked by calf—leg injury
Norman B. Hayes, Edinboro, Pa. 241.42
Caught hand in combine
Edwin Mead, Montrose, Pa. 235.00
Driving tractor, wheel spun—fractured wrist
Karl A. Eisenhauer, Lakeville, Pa. 547.91
Slipped putting milk can in cooler—injuries
Angie Howe, Turners Falls, Mass 350.00
Auto accident—multiple fractures
Mitchell Tomkiewicz, South Grafton, Mass. 271.43
Crushed by cow—injured chest & ribs
Leo P. Picard, Troy, Me. 105.72
Caught hand in saw—injured fingers
John Osage, Sherman Mills, Me. 105.00
Fell—fractured ribs & wrist
Athena Garos, Hooksett, N. H. 161.43
Auto accident—injured neck, bruises
Herbert Goodrich, Jr., Williston, Vt. 300.00
Driving tractor, hit by car—injured chest, bruises
Sarah E. Merrill, Randolph Center, Vt. 369.49
Fell from tractor & trailer—fractured arm
Joseph Molnar, Phillipsburg, N. J. 473.15
Auto accident—cut & broken nose
Jay Dennis, Columbia, N. J. 203.71
Caught in V belt—injured finger
Rosa Wagner, Glen Gardner, N. J. 250.00
Auto accident—fractured arm
Victor B. Heil, Alloway, N. J. 445.68
Fell from hay mow—fractured ankle
C. Drew Holman, Dutch Neck, N. J. 690.91
Injured shoulder & back
Harry Crain, New Egypt, N. J. 410.21
Skill saw kicked back—cut leg

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

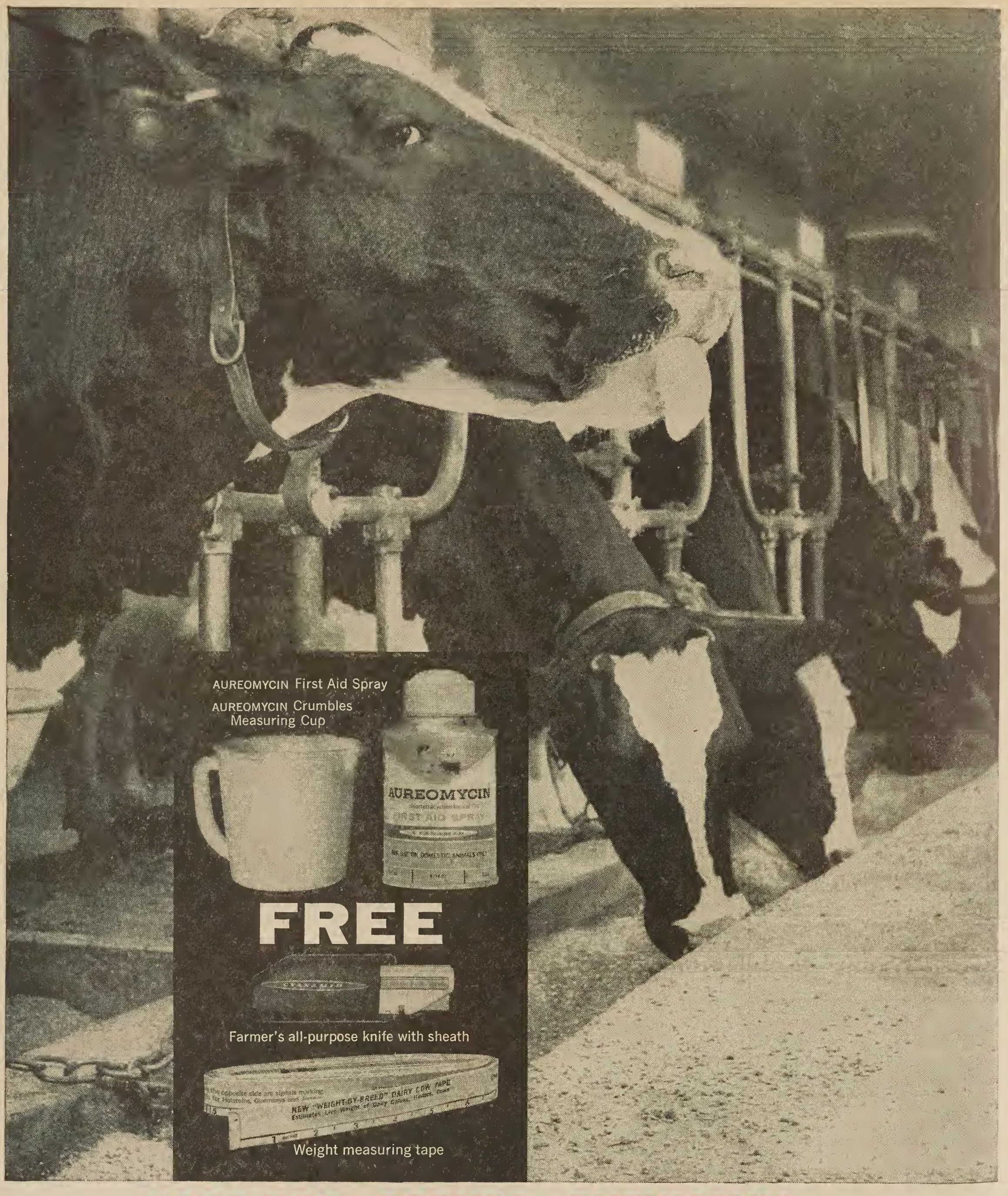
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FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)

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FOOT ROT? SCOURS? PNEUMONIA?



Thousands of livestock men swear by AUREOMYCIN® Crumbles to keep livestock problems under control. Right now we want you to know how much AUREOMYCIN Crumbles can mean to you, in dollars and cents. We make this special offer: Buy a 50-lb. bag of AUREOMYCIN Crumbles from your regular supplier; cut out green insignia from front of bag, fill in your name and address on back. Also say "Dairy Kit" and mail to Cyanamid. You'll get full health control—plus a valuable FREE Kit. Get details from your regular supplier.

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PRINCETON, NEW JERSEY

Founded 1842

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

Fifteenth Forum of Business & Agriculture

NOVEMBER 1962



MAYBE SOME folks will wonder about our choice of words "Business and Agriculture," saying that agriculture **is** a business—to which we would heartily agree. But the purpose of this 15th Annual Forum Issue is not to be an exercise in semantics, but to explore the interdependence of non-farm business and agriculture. Common goals of both are discussed, including keeping—and strengthening—our competitive free enterprise system.

The men in the picture above symbolize the working relationship between farmers and the industries that serve them. New York State Electric and Gas representative George Lundin (left) is discussing a suggested electric wiring change at the farm of Donald Zimmer of Newark Valley, New York. Electric power has rubbed Aladdin's magic lamp on the farms of the land within the last two decades, helping to boost output per man at a fantastic rate, and bringing a new era in the rural home.

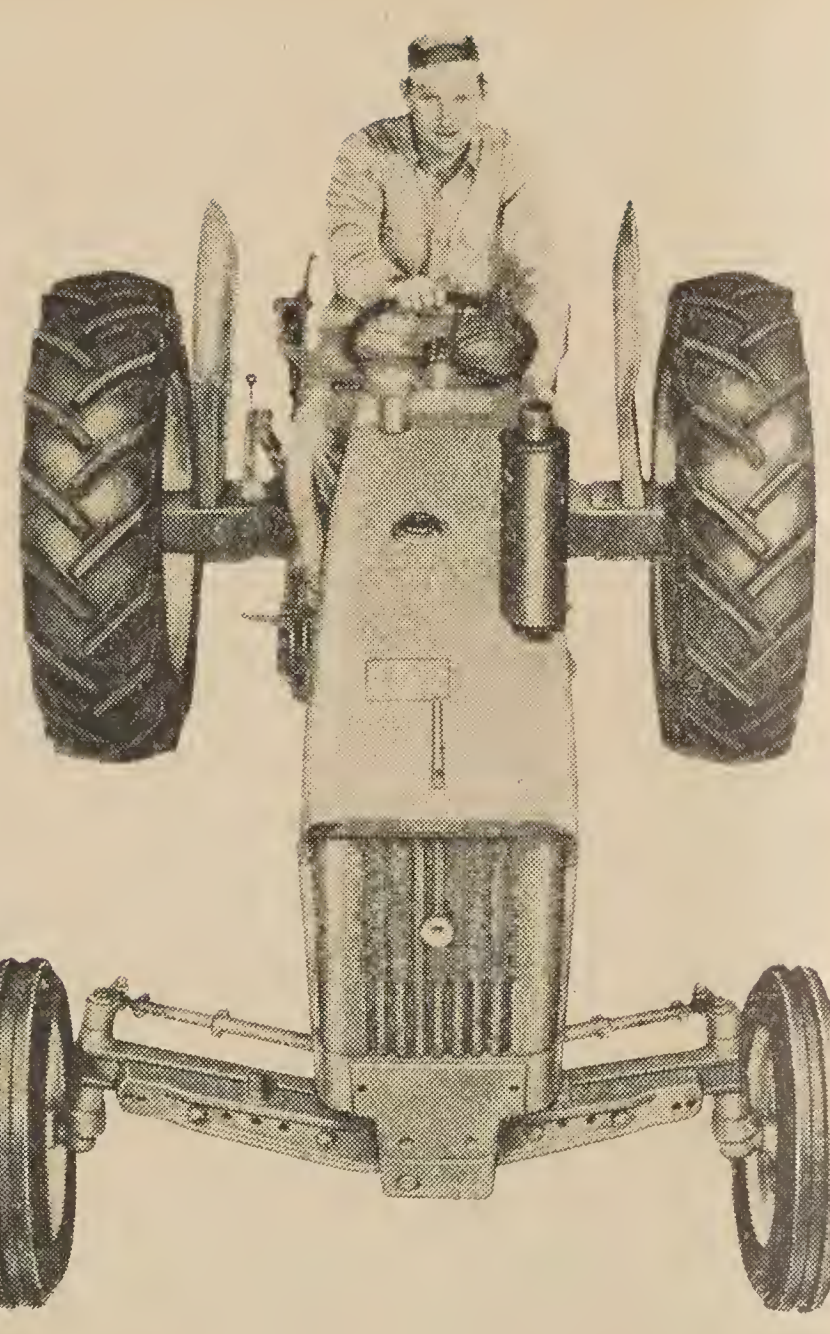
George is only one of the many representatives of business who call at the Zimmer home. Sure, they all seek to help their companies make a profit (and what's wrong with that?), but most of them seek to help their farm customers also make a profit through the use of items the farmer buys.

It's unnecessary here to quote figures on the enormous amount of goods and services purchased by farmers every year. The experts say that 40 percent of our total labor force is involved in agriculture and the industries directly concerned with supplying agriculture, or processing and distributing farm products.

We've tried to put in this issue (see page 4 index) articles that will stimulate your thinking about where business and agriculture are and where they are going.

As is always the case, we invite letters in response to what you read in American Agriculturist.

NEW 35 H.P. 1010 SPECIAL ROW-CROP UTILITY

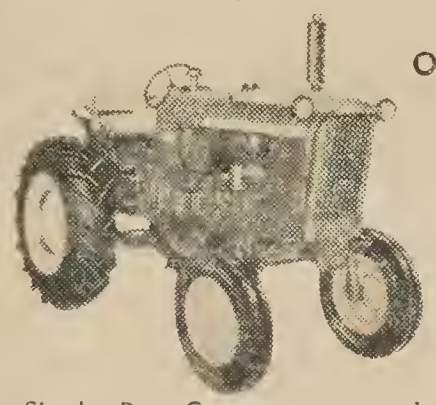


JOHN DEERE whittled down the price—without pruning any earning power



Here's the lineup of high-value features you get as *standard equipment* on this low-priced Special. NEW 5-speed transmission with speed ranges you want, including a "slow low" of 1 mph (at 1500 rpm). NEW handier shift lever and throttle control. NEW ease of servicing provided by spring-held service panels. PROVED dependable 4-cylinder variable-speed gasoline engine, 600 to 2500 rpm full-governed range. Single hydraulic system with Load-and-Depth Control. Rockshaft and 3-point hitch. 540 rpm PTO outlet. Swept-back front axle and adjustable rear axle (56-80-inch tread range). Fenders. Formed pressed-steel seat. Also available are lights, remote-cylinder control, cushioned seat, PTO stub shaft, and drawbar. SEE . . . DRIVE . . . AND PRICE the new "1010" Special at your dealer's now. It's available on liberal John Deere Credit Plan terms.

Other "1010" Models to fit your particular needs



Single Row-Crop—power aplenty for heavy tillage plus clearance, view, and easy handling for precision cultivating.



Grove and Orchard—design features include extra-low profile, underneath exhaust, and shielding over rear wheels.

JOHN DEERE

3300 RIVER DRIVE • MOLINE • ILLINOIS

JOHN DEERE

JOHN DEERE design, dependability, and dealers **MAKE THE DIFFERENCE**

"YEAR-ROUND USE OF AUREOMYCIN MINIMIZED SCOURS AND FOOT ROT"

Vermont dairyman credits formula feeds containing this antibiotic for improved herd health, more cows regularly in the milking line.

"The very first season we used AUREOMYCIN® in feed we noticed a remarkable drop in the number of cases, as well as the severity, of foot rot and bacterial scours."

So states Leonard Gilman who operates a dairy farm near Enosburg Falls, Vt.

"We had been struggling with these two problems for a long time. In many cases, foot rot disabled some of our best cows, making them so sore they couldn't walk. That, of course, meant costly treatment and a severe drop in milk production.

"Because our calves and heifers raised on pre-mixed grain feed containing AUREOMYCIN scoured less, they finished out in top condition, and their general health went up several points."

Sums up Mr. Gilman: "AUREOMYCIN used the year-round held disease to a bare minimum and built up health. It goes without saying that as herd health improves so does milk production."

See your feedman

Many other New England dairymen have had success similar to that obtained by Mr. Gilman with feeds containing AUREOMYCIN. Why not protect your herd *this* fall and winter in the same way? It pays! See your feed manufacturer or feed dealer. American Cyanamid Company, Agricultural Division, Princeton, N. J. ®*AUREOMYCIN is American Cyanamid Company's trademark for chlortetracycline.*



Says Mr. Gilman: "AUREOMYCIN, used the year round, held disease outbreaks to a minimum."

CYANAMID
AUREOMYCIN
IN DAIRY FEEDS

CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

Editorials



By Gordon Conklin

THE PATH AHEAD

BUSINESSMEN, both on the farm and in the villages and cities of our land, have succeeded over the years in creating a land of milk and honey in these United States the like of which the world has never seen. Major credit for this comes, not from our natural resources, but from the vitality of convictions held by the men who hammered out the foundations of our country. Some principles of human behavior were recognized by our ancestors, and they wisely organized the nation with these principles in mind.

First, they understood the incentives that push people to work hard and discipline themselves. One of the strongest is reward directly proportionate to accomplishment. John Smith put it very bluntly, "He who does not work shall not eat." They knew that a certain proportion of every group seeks to be parasites on the rest, consuming without producing. To an extent, they reasoned, everyone tends to "goof off" unless what he has depends on what he produces.

Second, they understood all too well the dangers of great concentrations of power — whether in families. in government, in certain economic groups, or in any pressure organization. They insisted upon the fragmenting of power—both political and economic—with a system of checks and balances, saying that the ideal situation at any bargaining table is to have equals sit down around it. "Power corrupts"—and they knew it.

Third, they recognized that change is not only inevitable, but desirable. They tried to sort out unchanging principles to build a framework upon which later generations could build a changing superstructure of society. They knew that the musket would not always be the weapon of armies, but they also knew that men must always be ready to fight for freedom.

Fourth, they saw the importance of spiritual growth in the life of a nation's people—with all it implies of individual responsibility and moral values. Our ancestors had read history, too, and knew about Rome, Greece, and all the others who had become rotten within before being trampled into the dust of the ages. They knew about the cancer of materialism and the endless delusion of man that he can get something for nothing.

Fifth, they conceived of life as an invitation to growth, and recognized that a person often has to be encouraged—sometimes even pushed —to move forward. They knew that a high degree of freedom of choice is essential to growing up, and struggled to create a climate encouraging people to develop character. Emphasis on education for all came to these shores on the ships of the Pilgrims.

Finally, these men recognized that the real wealth of any nation is the character of its people, and the opportunity they have to exercise a high degree of freedom of choice. They knew, without ever having heard of Mount Everest and its famous conqueror, that the insatiable human mind and spirit constantly challenge the mountains of accomplishment "because they are there." These men, wise in the ways of living, understood the river of creativity that flows from a people encouraged by the fresh air of democracy to express the best that is in them.

Recognizing these facts of human nature, they tried to create for the emerging nation a governmental and economic system that would provide maximum flexibility and yet take into account the lessons learned so dearly by generations gone. Evidence is on every side that they planned well.

It looks to me as though we have sometimes rejected the framework of principles bequeathed to us, along with the superstructure, which indeed needs constant change. We do this at our peril.

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

Founded 1842 Volume 159 No. 11

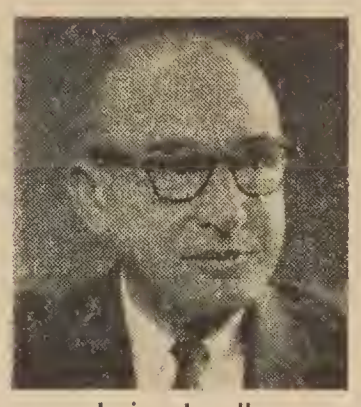
Frank E. Gannett, Chairman of the Board 1931-1957

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Irving Ingalls



Ernest Porter

WELCOME ABOARD

AS OF NOVEMBER 1, Irv Ingalls retires as Advertising Manager of the American Agriculturist after 38 years of yeoman service. Irv will be long remembered by his colleagues at Ithaca, and by members of the advertising profession all around the country, as a real gentleman.

Ernie Porter will be the new boss man at the desk in Room 415 in the Savings Bank Building here in Ithaca. He has a mighty long and impressive pedigree, only a portion of which we'll mention here. Ernie was born at Gallipolis, Ohio, and spent his youth on a 260 acre farm. He graduated from Ohio State University, was a major in the Army during World War II, after which he joined the Home State Farm Publications where he was advertising sales manager for nearly 15 years. He was named vice-president of that organization in 1961.

Warmest best wishes both to Ernie and Irv as they begin new chapters along the path of life.

A DISSENTER

IT IS MY FIRM conviction that the words "trick or treat" should be banished from the vocabulary of our young people. I defy anyone to look me straight in the eye and interpret this phrase to mean anything other than, "Give me something I want, or I will damage your property."

In the "niceness"—and shallowness—of our society, we smile at the "cuteness" of our children, and claim that their annual Hallowe'en pilgrimage to collect goodies from the neighbors is really harmless. But disquieting second thoughts begin to disturb our indulgence when we read of a Detroit high school vandalized, of riots at Fort Lauderdale, of the calling out of the National Guard in Idaho to quell youthful defiance of police.

It's good clean fun for small children to dress up as "spooks" and witches so they can visit their neighbors and wish them a happy Hallowe'en. There is nothing wrong with accepting freely-offered solace for the sweet tooth, either. But we parents are just kidding ourselves if we don't appreciate a child's comprehension of the implied meaning of words. Do we really believe that children miss completely the implication of threat, especially in the light of actual damage done by some older youth in many communities to "celebrate" this holiday?

THANKSGIVING PRAYER

LORD, WE ARE grateful for the harvest, for the joy of loving and of being loved, for life itself. Even though the wondrous tapestry that autumn spreads across the hills is fast fading, still we marvel at the beauty of it all.

The list of things for which we give thanks has no end, but we know that length does not measure the sincerity of prayer. Let us then express, at this special season, our thanksgiving for the grace which enables us to greet each new dawn with eagerness, and to look upon the eventide with peaceful hearts. Amen.

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AA's Farm Dollar Guide

HERE IS A BRIEF SUMMARY OF SOME IMPORTANT PROVISIONS OF THE FARM BILL RECENTLY PASSED AND SIGNED BY PRESIDENT KENNEDY:

I. WHEAT AND FEED GRAIN PROGRAM FOR COMING YEAR CONTINUED, with little change. Cash price support for wheat will be $1.82, down from $2.00--but producers who cut acreage from 20% to 50% can get direct payment in government surplus grain equal to 18 cents per bushel of corn and wheat, plus sizeable cash payment for acres retired.

Sign-up for winter wheat diversion will begin October 15 and close December 14. A new provision requires that growers divert full acreage signed up or else lose price supports, incentive payments, and diversion payments.

II. BEGINNING FOR 1964 WHEAT CROP A TWO-PRICE SYSTEM WILL BE IN FORCE ON WHEAT (provided two-thirds of eligible voters say "yes.") Secretary of Agriculture will set quotas--bushels and acres--growers will get certificates for their share of domestic food and export wheat, which will get a higher support than wheat used for feed. Growers will get cash payment for two years (1964 and 1965 crops only) equal to 50% of the value of wheat produced below their '61 allotment.

III. IN 1964, MINIMUM SUPPORT FOR CORN WILL BE LOWERED from $1.05 to about 80 cents, with maximum about $1.44. Secretary of Agriculture can set supports between these limits. Evidence indicates Administration still sold on strict production controls.

IV. LOANS ARE PROVIDED TO FAMILY FARMS through Farmers Home Administration (FHA) for development of recreational facilities as income-producing possibility. Fish farming is included. Maximum loan is $35,000. Interest rate is 5%; repayment up to 7 years.

V. SUM OF $15 MILLION is provided to renew Soil Bank contracts for about 1.3 million acres that expire December 31. Total land now in this program about 25.6 million acres.

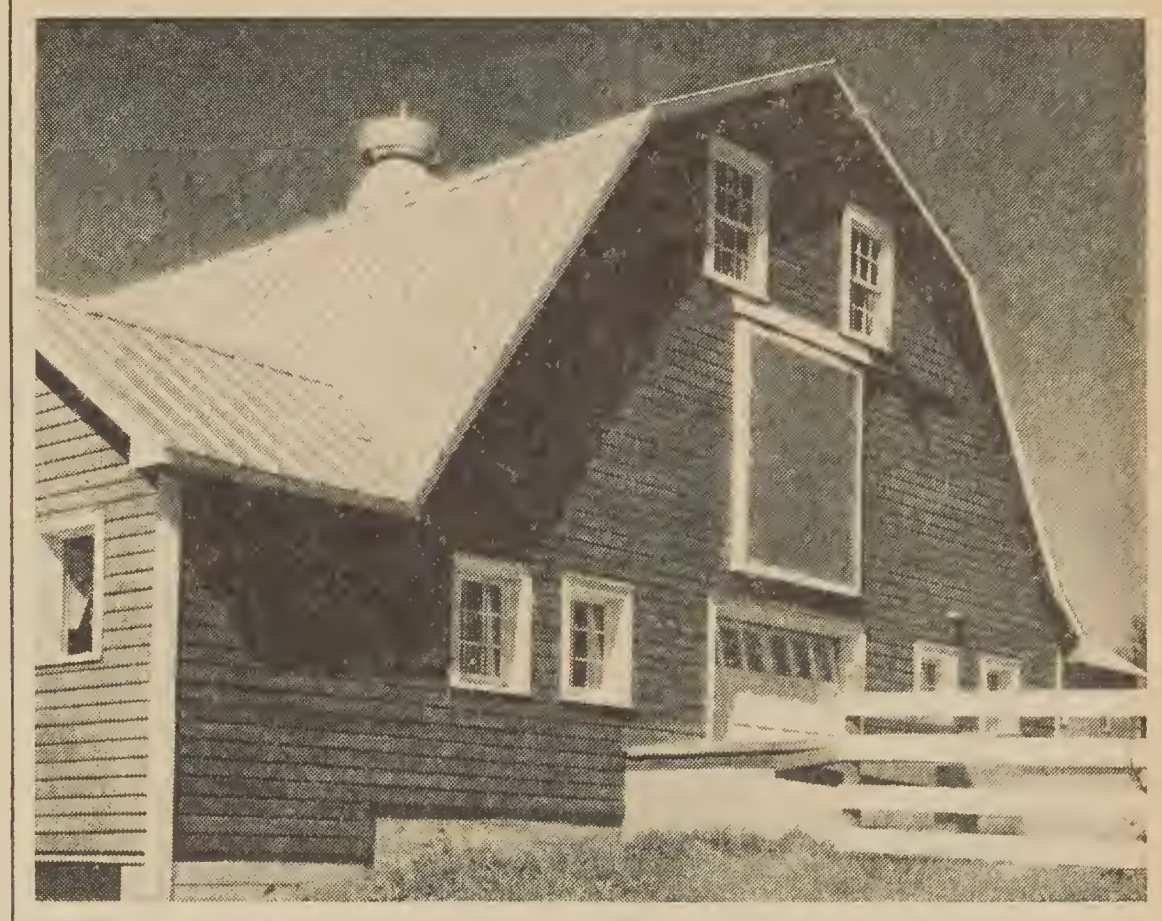
VI. SUM OF $10 MILLION A YEAR is provided to help farmers put land (not in the Conservation Reserve) into long-time grass, trees, or recreation. This is to help farmers change cropping systems and land use.

The Song of the Lazy Farmer

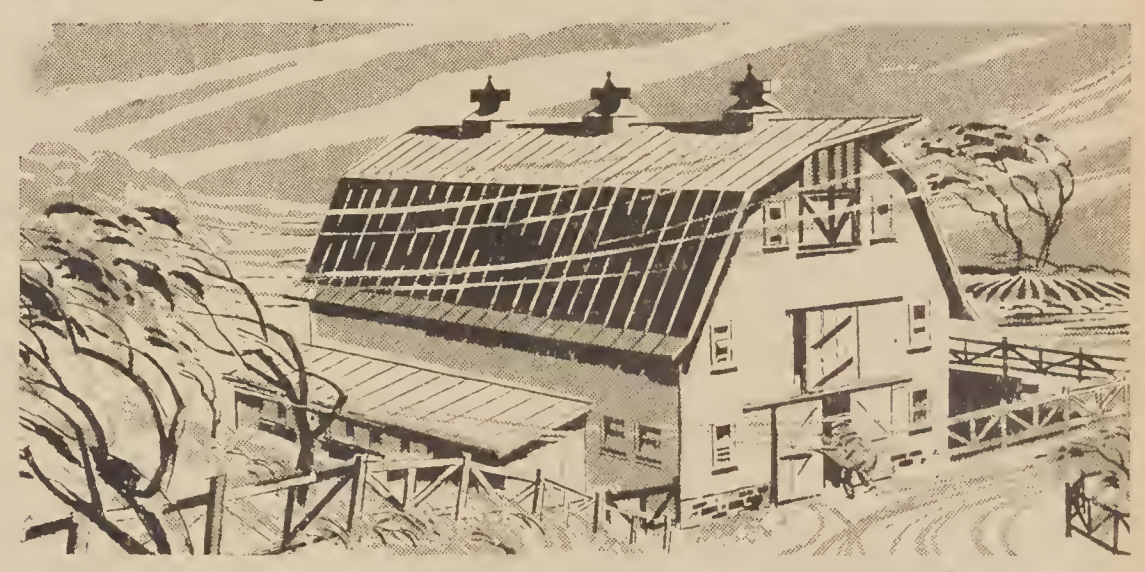


IT SEEMS like not a day goes by but what someone shows up to try and sell me on some speeial feed or something else he thinks I need; I don't know how some folks can say there's millions out of work today, if unemployment is a fear it must be someplaee else than here. But I don't really mind at all when any salesman comes to call, it's fun to hear eaeh diff'rent spiel and watch 'em try to elose a deal. It doesn't even hurt if I should weak-en and agree to buy, a credit eheek will guarantee they'll never ship the stuff to me.

Besides, why spend a lot of dough to make my erops and livestoek grow? When I plant seed right from the field, less eost makes up for lower yield; and if I spread plant food around, I'd only spark up all my ground so it would take more labor to produee and harvest all I grew. Those faney rations for my stock would keep me busy 'round the elock, I'd rather watch them fill their needs by eleaning up old stalks and weeds. Let neighbor give those salesmen glee by buying all their wares, by gee; he can afford that stuff in sacks because he owns two Cadillacs.



This roofing is so trim and handsome...



So strong, durable, hurricane-proof...



So easy and quick to install...

That you find it hard to believe it's THE LOWEST-COST OF THEM ALL!

You just can't beat Galvanized Steel Roofing by BETHLEHEM

Galvanized Steel

for Strength . . . Economy : : . Versatility

BETHLEHEM STEEL



Can We Keep

The Miracle Of Production?

By Aubrey D. Gates*

I'M A COMMUTER from my home in Wheaton, Illinois, to my office just north of the Loop in Chicago, a distance of some 27 miles. The north lot line of my property is a cornfield. I spend what time I can on weekends puttering in a vegetable garden, which the farmer who owns the cornfield has the kindness to let me till; and driving about the rural countryside, just watching a few of the things that are happening.

I never cease to marvel at the miracle of production that permits us and the other four million people who live within the city of Chicago to have our toast and bacon and eggs for breakfast, and a superabundance of every conceivable kind of food readily at our fingertips. If there are problems involved in producing and distributing, we city dwellers are scarcely aware of them. There are millions like us in the nation's metropolitan centers and small cities, who have no greater knowledge of what is going on than what we read in the newspapers—and that's pretty fuzzy.

Yet, back of all this are America's farms and farmers. Here lies the real phenomenon. Although I do not minimize the role of distribution, **production is basic to all else.** If it were not for this phenomenon of production, more than half of our population would be basic food producers.

It was not until the farmers became efficient enough to feed the rest of us, that the rest of us could go into the professions, the trades, and service industries. It is, therefore, **not** a miracle. It is because of the system under which the phenomenon developed, and the **people** who developed it. Let America never forget this fact!

Adjustments

Naturally, in these sweeping developments there were and are displacements—there were and are adjustments. There have been and will continue to be many changes. Most of these have been good, and America and Americans have adapted to them remarkably well. We must examine carefully what part past and current artificial influences play in making the adjustments. Centrally controlled programs can easily stop or limit change, or even reverse the direction in which we've been traveling so successfully. We must, therefore, beware of choking influences on the flow of basic production, so as to avoid reversing our whole system.

In November, 1946, when I was Director of the Agricultural Extension Service for the University of Arkansas, I had a telephone call late one night from a young lady reporter on the Arkansas Gazette who said: "We have just received an Associated Press story from the Department of Agriculture in Washington which says that the mechanical cotton picker is now a reality, and will be in general use in the near future. What are your comments?"

My comment was, "Thank God!"

The excitement in this young lady's voice became intense, and she quickly inquired: "You can't really mean that. What on earth is to become of the people that the mechanical cotton picker will displace?"

My reply to that has been a standard reply for a long time: "The changeover to mechanical cotton harvesting will come about very slowly. Whatever becomes of the people will be better than what they're doing now."

I don't know how many of you have ever picked cotton—but I have—and there's no more demeaning, miserable job in the world than picking cotton—unless it be that of **chopping** and **hoeing** cotton. The mechanical cotton picker has not put an end to the hand-picking of cotton, but it has furnished one additional step forward in man's struggle to produce fibre for men's clothing needs without the backbreaking work of human beings. Through industrial development, through changed farming systems, and in the service trades, human cotton pickers have found more lucrative employment.

I reminded the young lady also that in some areas of the country—and I cited New York State as an example—the system of agriculture had changed four times since the country was settled. The changes were always gradual, and each time the situation of people who lived on the land—and in the cities—had improved. Since the first man picked up his club to get his game by some method other than his bare hands, mechanization has usually been either questioned or resisted by those who didn't understand what mechanization means.

Today we still have problems of adjustment to mechanization. But mechanization will continue to be a part of the miracle of production, and no doubt, if left free to function, will provide for farmers and consumers alike more bountiful supplies and higher standards of living. There's no need for me to cite the advances in the use of chemistry, in pesticides, insecticides, growth stimulants—yes, probably in the use of atomic energy and all the other vast changes that have taken place, and will continue to take place. It simply means that there are changes; we must accept them; they are going to sweep forward. They cannot and must not be stopped.

Some Fundamentals

But, in these changes we must recognize that what brings us into a different social and economic relationship must not wipe out the basic reasons **why** we have achieved this phenomenon—**incentive and reward.**

There are now some 25 consumers of food to each producer. They are physically intermingled in ways never seen before in this country. There are complex problems of production, adjustment, taxation, representation, and many others. America must make sure that merely because consumers outnumber producers, the problems are not settled by a majority vote. Byron Fredrick, editor of the Ohio State Grange Monthly, recently quoted a paragraph from a history of Greece. It says:

"A democracy cannot exist as a permanent form of government. It exists only until the voters discover they can vote themselves a gift out of the public treasury. From that moment on, the majority votes for the candidate promising the most benefits from the public treasury."

I am thankful that our government is a representative Republic, where the majority can govern, but in which the minorities are protected. As a suburban consumer, I selfishly would like to have inexpensive food, a high income, and low taxes. If this is imposed on the farms which surround me, however, then soon I shall have to devote more of my time to my vegetable garden, and less to my profession. Under these circumstances, the next generation could easily slip into a peasant agriculture, and all Americans would be the losers. This applies, regardless of whether we impose it in my local community by a zoning ordinance, in the state legislature by a property tax, or in the national Congress by rigid production controls.

At one time, the village and cities of America were interspersed between the farms of America. They merely dotted the map, and represented a small proportion of the people of the nation. Now the farms of America are interspersed between the villages, suburban areas, and non-farming rural dwellers, who earn their income in non-farm employment.

In 1960, farm people with a total income of $20.7 billion earned $6.9 billion of it in off-farm work. Many of these families have one or more members who belong to labor unions; who participate in company-wide health insurance programs or other industrial-related interests. This cannot be said to be all to the good, or all to the bad. It has to be recognized as a fact that will modify farming, farm policy, and rural life. When approximately 55 percent of the farms under the new census definition are producing approximately 95 percent of all products sold into market channels, we can conclude that these families were devoting pretty near full time to farming. However, it is interesting to note that receipts from off-farm employment among producers are sizable.

Extreme caution is urged, therefore, on what our farm policy shall be, who makes it, and how it is made. We're going to have to face up to some new considerations. Because things do move so rapidly, there are those who believe that problems cannot be solved locally and therefore have begun to look to the central federal government. In my opinion, the quickest way we can go about losing the privilege of living in a free, rural urban community is to assign responsibility to someone else. Whether it is financing schools, farm policy, taxation, or representation in the state legislature, most of it can be settled at a community level.

Success Elements

Before I conclude, I should like to comment on the farmer as a stabilizing influence in the nation. Today's farmer combines the three great elements of success in America.

First, he is a laborer who has full understanding of and appreciation for productive effort.

Secondly, he is a capitalist. He has a rather vast investment, compared to years past, in production equipment, land, livestock, and materials. Quantities of borrowed money or credit are as essential to him as to any other industrialist.

Thirdly, he is a manager—else he will not be in business long. He must manage effectively his own labor and that of any person he hires—in conjunction with his investment.

On the whole, then, he combines these three unique factors as no other occupant in the American system. He is and has served as a kind of stabilizing gyroscope for America's social and economic system.

He is the miracle in the phenomena of production of food. His physical production plant and capital are in full view. There isn't much that can be concealed from the tax assessor. If local tax rates are determined by those of us who need schools, roads, parks, or libraries, we must have a full understanding of what we are doing. If the farmer's freedom to produce and market is limited by those of us who consume and vote, then we had better beware of what we are doing. We may be limiting our freedom to eat!

If I sound like a common pleader for one special agent, I plead guilty. I do so because of much that I see, hear, and read as a suburbanite. The commercial producers must be accurately recognized for the important role they play in American life, and permitted to continue to work in a free atmosphere with support — and not restraint—from the rest of us.

Then we can keep the miracle of production that has blessed us as a people—and as a nation.

* Past President, American Country Life Association

Here's the *Amazing* New Hospitalization Plan Folks Everywhere Are Talking About

This unique plan for non-drinkers pays you $100.00 cash (tax free) for every week you are in the hospital . . . from the very first day . . . even for life!

HERE'S a plan that gives you peace of mind and freedom from money worries when sickness or accident strikes. The Gold Star Policy will pay you $100.00 weekly, from your first day in the hospital, even for life!

GOLD STAR REWARDS NON-DRINKERS

If you are carrying ordinary hospitalization, you are naturally helping to pay for the accidents, illnesses, and hospital bills of drinkers. Alcholism is our nation's No. 3 health problem, ranking immediately behind heart disease and cancer.

Statistics show that those who drink are sick more often, and for longer periods, than those who don't drink Until now, *your* insurance cost as much as theirs. Now, with rates based on the superior health records of non-drinkers, Gold Star rewards you instead of penalizing you for not drinking, by offering you lower premiums.

Remember, one person in every two families will be hospitalized this year. A sudden fall, a spell of illness, or an operation could put you or one of your loved ones in the hospital for weeks, perhaps months, and could cost you hundreds, even thousands of dollars.

CAN YOU AFFORD TO BE SICK?

Can you afford a long siege in the hospital, with costly but necessary doctors' bills, expensive drugs and medicines? Many people lose their savings, their cars, and even their homes trying to meet these ever-increasing costs. Don't take chanees with your financial security, your future. Remember—once the doctor says it's your turn to enter the hospital, it's too late to buy coverage at any priee!

LIFE PROTECTION—NO AGE LIMIT

Your Gold Star policy can never be cancelled by the company, no matter how long or how often you are sick. Your protection is guaranteed for life. Only *you* can cancel. And the present low rate can never be raised as you grow older, or have too many claims, unless there is a general rate adjustment up or down for all policyholders!

Why not get the peace of mind and freedom from worry this amazing low-cost hospitalization plan offers? Send the postcard *now* for full information by mail. No salesman will call on you, now or ever. Since there's no obligation, why delay?

COMPARE THESE GUARANTEED BENEFITS:

NO AGE LIMIT. Same liberal benefits whether you are 1 or 100!

GUARANTEED RENEWABLE. Only YOU can cancel your policy. Your protection continues as long as you live!

NO WAITING PERIODS. Full benefits go into effect noon of the day your policy is issued. And Gold Star pays from the very first day you enter the hospital.

NO SALESMAN WILL CALL. Policy is mailed to your home. Claim checks are sent air mail special delivery, directly to you, and can be used for rent, food, hospital, doctor bills—any purpose you wish!

GOOD ANYWHERE IN THE WORLD. Gold Star has satisfied policyholders in all 50 states and in many foreign countries.

YOU PAY ONLY FOR PROTECTION. No policy fees; no enrollment fees; no membership dues!

ADDITIONAL GOLD STAR BENEFITS

Pays $2000.00 cash for accidental death.
Pays $2000.00 cash for accidental loss of one hand, or one foot, or sight of one eye.
Pays $6000.00 cash for accidental loss of both hands, or both feet, or sight of both eyes.

ONLY CONDITIONS NOT COVERED

Every kind of sickness and accident is covered, except hospitalization caused by use of alcoholic beverages or narcotics, preexisting conditions, mental or nervous disorders, any act of war, or pregnancy. Everything else IS covered!

Outstanding Leaders Say:



S. S. KRESGE, founder of the S. S. Kresge Co., with over 800 stores: "I'm delighted that non-drinkers are now rewarded by insuring with the Gold Star Plan at substantial savings. Gold Star's popularity indicates that it is the right answer to the question of drinking and hospitalization."



HON. FRANK CARLSON, United States Senator, Kansas: "I am delighted that Arthur DeMoss has worked out a plan to provide hospitalization for non-drinkers at reduced cost. I would urge those concerned about their financial security to take advantage of this excellent opportunity."



DR. DANIEL A. POLING, outstanding minister and Editor of The Christian Herald: "The advantages of a hospital plan which is available to non-drinkers only are obvious. The lower rate is made possible because you are not paying the bills for the illnesses and accidents of those who use alcohol."

MONEY-BACK GUARANTEE

We'll mail your policy to your home. No salesman will call. In the privacy of your own home, read the policy over. Examine it carefully. Have it checked by your lawyer, your doctor, your friends or some trusted advisor. Make sure it provides exactly what we've told you it does. Then, if for any reason whatsoever you are not fully satisfied, just mail your policy back within ten days, and we'll cheerfully refund your entire premium by return mail, with no questions asked. So, you see, you have everything to gain and nothing to lose.

Gold Star is the only hospitalization plan voluntarily endorsed and recommended by over fifty nationally known leaders!

Happy Policyholders Write:

Jesse F. Colson, Steuben, Maine
"I am completely satisfied with the prompt attention you have given my recent claim and for the check paid in accordance with your policy. I know now I am insured by a very reliable company and will recommend you highly to all my friends. Thank you."

Dorothea Buck, Jamestown, New York
"The kind letter, also check enclosed, brought cheer and encouragement. Accept my hearty appreciation for prompt and most satisfactory settlement of claim."

Mr. & Mrs. Robert W. Nelson, Leicester, Massachusetts
"We certainly appreciate your promptness in approving this claim and sending a check. We had long searched for this type of policy which would be adequate yet within our means. We thank the Lord for leading us to your ad."

Edger L. Acken, Montgomery, Vermont
"I appreciate the promptness with which you paid. I am recommending you to all my friends."

Mr. David P. Gaines, Waterbury, Connecticut
"I am a new member of your insurance family, but you were prompt in processing my claim for Mrs. Gaines' illness. I am fully satisfied with your handling of the matter. Thank you very much."

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1. Fill out application below.
2. Enclose in an envelope with your first payment.
3. Mail to De Moss Associates, Inc. Valley Forge, Pa.

You will receive your GOLD STAR POLICY promptly by mail
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APPLICATION FOR

Gold Star Total Abstainers' Hospitalization Policy

Name (Please Print)_____ 0-1-0251-112
Street or RD#_____
City_____ Zone_____ State_____
Date of Birth: Month_____ Day____ Year____ Height_____ Weight_____
My occupation is_____ Age_____
My beneficiary is_____ Relationship_____
I also hereby apply for coverage for the members of my family listed below:

NAME (Please Print)	AGE	HGHT.	WGHT.	BENEFICIARY
1.				
2.				
3.				
4.				

To the best of your knowledge and belief, have you or any person listed above ever had high or low blood pressure, heart trouble, diabetes, cancer, arthritis or tuberculosis or have you or they, within the last five years, been disabled by either accident or illness, had medical advice or treatment, taken medication for any condition, or been advised to have a surgical operation? ☐ Yes ☐ No

If so, give details stating person affected, cause, date, name and address of attending physician and whether fully recovered:_____

Neither I nor any other person listed above uses alcoholic beverages, and I hereby do apply for a policy with the understanding that the policy will not cover any conditions existing prior to the issue date, and that it shall be issued solely and entirely in reliance upon the written answers to the above questions.

Date: *Signed:* X
Form GS 713-3

HERE ARE THE LOW GOLD STAR RATES

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Each adult age 50-69 pays	$6.	$66.
Each adult age 70 and over pays	$8.	$88.

SAVE A MONTH'S PREMIUM BY PAYING YEARLY!

THE GOLD STAR PLAN is underwritten by the following leading companies, (depending upon your state of residence):

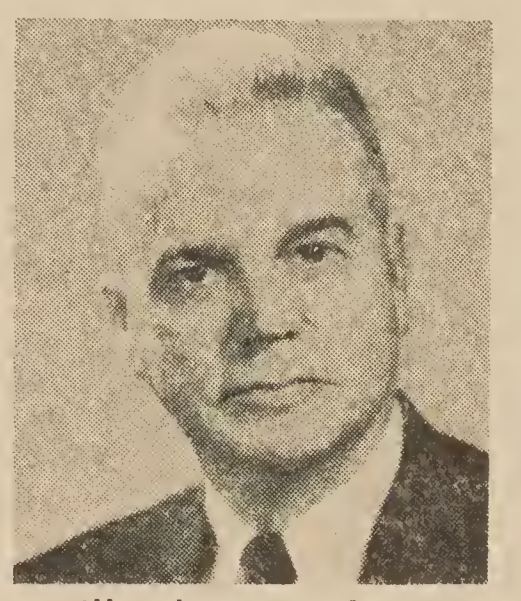
Guarantee Trust Life Insurance Company
Chicago, Ill.

National Liberty Life Insurance Company
King of Prussia, Pa.

Old Security Life Insurance Company
Kansas City, Mo.

MAIL THIS APPLICATION WITH YOUR FIRST PREMIUM TO > **DE MOSS ASSOCIATES, INC., VALLEY FORGE, PA.**

Here are the opinions of two nationally known men who agree that supply management in agriculture is a desirable objective. But they are poles apart on how they would achieve that objective.



Willard W. Cochrane

WHAT PATH

GOVERNMENT PROGRAMS OF SUPPLY MANAGEMENT

by ***WILLARD W. COCHRANE***
Director, Agricultural Economics, United States Department of Agriculture

THE AGRICULTURAL scene in the 1960's, as in the 1950's, is dominated by widespread technological advance, by a competitive market organization, and by an inelastic demand for food. These forces, not politics or farm programs, give rise to abundant production in agriculture and then turn that abundance into chronic price-depressing surpluses.

Technological advance is an integral part of the dynamic process of farming today. Research and development to produce new technologies is strongly supported in agriculture, information and extension services carry these new techniques to farmers, and the adoption of the new techniques by farmers is rapid and widespread. And we can expect a continuous outpouring of new technologies and their farm adoption over the years with the result that total farm output will expand year after year. The only question is—at what rate will output expand?

The competitive market organization is the engine of the farm economic system; it provides the incentive for widespread farm technological advance resulting in a continuously expanding aggregate output. Each farmer reasons that he cannot influence prices, but he can get his costs down by adopting new techniques and new practices. Thus, the aggressive modern farmer adopts these new practices, increases output, reduces costs and increases net returns. **But when all farmers do this, total output expands.** It has expanded persistently since 1940, and it will into the foreseeable future.

Expanding supplies would create no problem if the demand for food were elastic. But it is not; because of the inelasticity of the human stomach, the elasticity of demand for food is exceedingly low—approaching 0.2 in the aggregate. This means, at the retail level, that food prices must fall 10 percent to induce the **average consumer** to increase his purchase of food by two percent. At the farm level this relationship is even more extreme—the farm price level has to fall 15 to 20 percent to induce the **average consumer** to increase his food consumption by two percent. With this kind of demand confronting agriculture, only a little too much in the way of aggregate supply causes the farm price level to fall disastrously.

Reason For Problem

In summary, three characteristics of agriculture—widespread technological advance, a competitive market organization, and the inelastic demand for food—related as they are—give rise to chronically low prices and incomes in agriculture. Continuously expanding food supplies, growing out of widespread technological advance, press against the inelastic demand for food and drive farm prices down to low, or price support, levels, and hold them there.

Over the past forty years, a great many solutions to the farm surplus and income problem have been advocated. Most of them will not work because they ignore the basic forces described above.

Solving the farm problem by moving people



Charles B. Shuman

Read their comments thoughtfully and weigh them with care, for the kind of nation inhabited by generations yet unborn will depend in large measure upon decisions made in our time.

THE MARKET SYSTEM MODIFIED BY PRODUCER ACTION

by ***CHARLES B. SHUMAN***
President, American Farm Bureau Federation

THIRTY YEARS' experience, through Democratic and Republican administrations alike, has convinced most farmers that government supply management does not work—that it hurts rather than helps farm income. Only 25 percent of United States agricultural production has been under the federal control program, and most of the surplus and price control trouble is with these crops. It is no coincidence that the market price works well for 75 percent of farm production while the government sector flounders in surplus.

Why has government supply management failed in the past—why will it always fail?

Record Of Failure

1. **Production and price decisions made by politicians are more often in error than are those of the market place.** Millions of consumers voting with their dollars in the competitive market will make better decisions than the Secretary of Agriculture or any committee.

Government planning invariably fails because decisions on what is to be produced must be made on a political basis—to please the largest number of voters. These political decisions seldom result in producing what is needed, and usually protect rather than eliminate the inefficient. The competitive market, on the other hand, has been successful in bringing a high standard of living to the greatest number of people because it eliminates the inefficient and rewards those who produce the things that are needed. This is the law of supply and demand.

The market price system is the most important means of letting producers know of the changes in consumer needs. When a product or service is no longer needed, the price declines. Those producers who recognize the changed conditions and adjust most quickly are hurt the least; those who insist on continuing as usual will suffer the most.

If we believe that competition is good, and in harmony with the fundamental principle of producing for human needs, then we must accept the fact that those who cannot or will not change their ways may be temporarily hurt. However, the greatest good for all will result from a system where changes are dictated by human needs rather than by political decisions. Production for the competitive market is production for consumption—production in response to bureaucratic decisions results in waste.

The market price system does not work perfectly, but the logical procedure would be to improve its functioning rather than deny its existence or replace it with political pricing schemes. The competitive market price system is often charged with the responsibility for inadequate food supplies and low standards of living in underdeveloped nations. Careful study indicates that the problems of these areas are not the result of the market price mechanism but are more often due to tariffs, subsidies, and price-fixing that interfere with the market. Educational, cultural and capital deficiencies are also important factors.

out of agriculture is much in the news today as a result of the recent CED report. Protagonists of this approach seem to forget that farm people have been moving out of agriculture rapidly since 1940. The farm labor force has declined by 150,000 persons per year since 1951. The CED recommends that this rate be stepped up to 400,000 to 500,000 per year in the next five years.

Serious Objections

There are two serious objections to the CED approach. First, the overall economy is faced with higher rates of unemployment than are generally tolerable, and cannot at this time absorb a stepped-up rate of off-farm migration. Second, the bulk of the people leaving agriculture come from the very low-income low-production sector of agriculture. The average farm worker on the highly commercial farm produces **more than twice as much** as the average worker on farms having sales of $2,500 to $5,000, and **more than five times as much** as the average worker on farms with sales of less than $2,500 per year.

If the large reduction in farm workers projected by CED for the next five years comes mainly from low income areas, farm output would not be reduced. And even if the migration of farm people comes mainly from commercial agriculture, farm output would not necessarily decline, because there is still much room in agriculture to substitute farm technology and capital for labor. In short, the CED approach will not turn off the spigot of expanding production, and with the return to free prices as also advocated by CED, farm incomes would fall disastrously.

Many other solutions have been advocated from time to time—flexible price supports, moderate level price supports, production payments. Each of these has some capacity to support and protect farm prices and incomes, but none has the capacity to hold agricultural production within the bounds of food and fiber requirements. Each has failed or would fail on the hard fact of too much production this year and too much in the foreseeable future.

If producers of the great problem commodities want good and stable incomes, **and if** the rest of society will not underwrite the continuing costs of price and income support, they must develop and adopt effective supply management programs—**there is no alternative.** They must adopt supply management devices that enable the many producers in agriculture to **adjust supplies to demand** in an effective and orderly way.

Since 1951 society as a whole has underwritten the cost of price and income support in agriculture — transferring some $2 to $5 billion into agriculture each year for the past decade. This is what it has cost, year after year, to remove the surplus agricultural production from the market place, first in one commodity and then the next, hold prices at the support level, and either store, sell at concessional prices, or give away the stocks so acquired.

Farmers Must Choose

Almost any farm program will work, if there is enough money available from the general treasury; even that surplus generating program, the 1958 program, provides a great deal of income support for farmers. But when the general taxpayer no longer is willing to pick up the check, **farm people must decide** whether they want good and stable incomes, or the price and income risks that accompany complete freedom to plant and reap as they please.

Farmers generally consider controls over supply to be a nuisance, and they may not accept effective supply management in the troublesome commodities of potatoes, dairy, poultry and feed grains in the next few years. But if they value good and stable incomes more than they do complete freedom in farm decision-making (as I think they do), and when they realize what a free market really means to them, they may be happy to accept effective supply management.

Freedom is fine and everyone wants as much freedom of action as is realistically possible, but a completely free market agriculture could mean farm prices 25 to 40 percent lower than at present, and net incomes 50 percent, or more, lower in agriculture. This would mean income disaster to most farm families now in the land, and a long and terrible period of readjustment.

Supply management is a broad term that covers the idea of adjusting supplies **to** demand at some level of price. There are many, many different techniques for adjusting supplies to demand, and they can and must vary with the characteristics of the commodity and the conditions of the industry. Supply management programs may be voluntary or mandatory, be operated in terms of acres or bushels, and vary as to the point *(Continued on Page 14)*

MORE PROSPEROUS AGRICULTURE?

to a

2. **Farm progress is based upon change; government controls restrict or distort change.** American farmers lead the world in productivity and efficiency. Consumers enjoy a greater variety and abundance of food and fiber at a lower real cost than at any other place or time in the history of the world. Everyone has gained by the rapid development and acceptance of new methods—farmers as well as city people. However, there have been a few serious handicaps. The use of the historical base periods to determine quotas and allotments for the control of crop production restricts change and results in the denial of new needs. Price supports which tend to eliminate market price fluctuations encourage substitution and reduce consumer demand. Legislation to establish favorable prices and control production actually wastes valuable human and material resources by encouraging the production of the crops which were needed in the past — not those needed in the present day.

The basic fallacy of government price-fixing and production controls in agriculture is the denial of the market price system as the most efficient and equitable means yet known to bring about necessary shifts in production. The market price system rewards those who produce what is needed in the most efficient way; it does not give earnings or profits merely for hard work or a large volume of undesirable output.

In all honesty, government price fixing and subsidy payments are a means of getting "something for nothing"—the "something" being the guaranteed price or the subsidy, and the "nothing" being unwanted goods. Not only is political pricing unworkable, as proven by the present surplus and the unsatisfactory prices of the "government" crops, but it is morally wrong to try to get something for nothing.

3. **Farm products are priced out of the market.** The objective of government supply management is to force farm price levels above those which would prevail in the market. To make the controls more palatable, high price supports usually accompany supply management. The almost immediate effect of these artificial prices is a drop in consumption as buyers seek substitutes.

Let us look at the history of recent price support action. In 1960-1961, dairy price support levels were raised three times: first in September, 1960, then in March, 1961 and again in July, 1961, when the purchase prices paid for butter, cheddar cheese and nonfat dry milk were arbitrarily raised. The inevitable result of these untimely raises was increased production and reduced consumption. Substantial progress had been made in bringing dairy supplies in line with demand. That progress was wiped out in 1961.

Finding themselves in a jam, administrators in 1962 reduced dairy price supports, making it necessary for dairy farmers to go through the painful adjustment all over again. It is obvious that if there had been no meddling with the dairy price support levels, producers would be in a much better position today. It seems reasonable to conclude that the present reduced level of price supports will lead—like the level in the 1958-60 period—to a stabilizing of milk production and increasing consumption. In time, we will again be where we were in 1960; stable production, rising farm market prices, and decreasing price support purchases. In fact, dairy production has already declined slightly.

Dairy farmers are not alone in their role of victims of unwise government action. What is happening to the dairy farmer has happened to the cotton farmer, and the soybean farmer is the latest victim to be threatened with "a critical situation."

The feed grain program is another example; this program has cost taxpayers more than $1 billion per year for the last two years without achieving its stated objectives of cutting program costs and reducing production materially. Even with substantial acreage cuts, takeover of corn by the Commodity Credit Corporation from the 1961 crop is expected to be a near record amount of 600 million bushels.

4. **From these recent experiences we have also learned that government supply management by acreage control actually stimulates increased production on the remaining acres.** Thicker planting, supplemental irrigation and liberal use of fertilizer have boosted corn and feed grain yields to new record levels. Farmers made a substantial cut in 1961 feed grain **acreage,** but the final result was a paltry 4.3 percent drop in actual **bushels** produced; the 1962 program is an even greater failure.

An often overlooked cause of the surplus-stimulating effect of government programs is the "insurance" feature. Prices are announced in advance of the plant- *(Continued on Page 15)*

County Agent Comments

YOUR EDITOR sent a letter to several county agricultural agents asking them this question, "If you could wave a magic wand and bring into being three items of equipment or materials which you believe would be of greatest benefit to farmers in your area, what would you select?" Here are portions of some of the replies, all from agents in New York State.

North Country

Don Huddleston of St. Lawrence County answered this way:

"My first suggestion is based upon today's needs. Except for its being somewhat immature, we have just grown an excellent crop of corn silage in St. Lawrence County. However, all too much of it is going to be left in the field all winter, because farmers cannot harvest it. Fall rains came on and many corn fields are a sea of mud.

"Therefore, I would like to see a field chopper with carrying box attached designed to operate by the helicopter principle. Such a machine would skim the surface of the ground and make it possible to harvest the corn crop regardless of mud conditions.

"I can even visualize this machine might dump silage directly into the top of the silo, and therefore eliminate the need for a blower. Of course I would expect the company designing this machine to keep the original investment and the cost of operation in line with modern day farm equipment.

"My second suggestion is for a machine which will make it possible to harvest and dry hay at its ideal stage regardless of the weather. Such a machine would need to make use of some type of radiant heat. I would want this machine to be able to travel down the field regardless of weather conditions, and in a matter of seconds have hay come out the back completely dry, baled, and ready for storage in the barn.

"My third suggestion is probably more easily obtainable. I would like to see a practical conveyor system developed which will transport silage from the silo--and grain from the grain bin--around the barn to eliminate need for transporting these feeds up and down the mangers."

Southern Tier

From Broome County, Cleon Barber and Clarence Padgham teamed up to make these suggestions:

"First, a practical, economical, and accurate system of measuring the quantity of milk produced by a dairy cow, at each milking, when they are milked in milking parlors, or pipeline milkers. It is essential to have some knowledge of what each cow is producing at each milking in order to apply top management practices.

"Second, an automated system or device to put the feed for dairy cows before them when they are housed in stanchions. Because of the high capital requirements of a parlor milking system and due to the fact more intensive management can be given to a cow in stanchions, it seems likely that cows will be housed in stanchions for a long time to come in this area.

"Finally, an automatic braking mechanism on farm wagons. This could be developed with a hydraulic plunger built into a telescoping pole on the wagon so that when down-hill pressure is put on to this pole it would automatically put on the brakes on the wagon."

Central Plain

Russ Parker of Livingston County had this to say:

"For the future needs of farmers in our area, I would select from a long list the following three:

1. A light-weight self-propelled universal harvesting machine. I am thinking in terms of a combine that would satisfactorily harvest all grain crops including dry beans and forage crop seeds. With adjustments this machine should also harvest green peas and lima beans. Adaptation of the same basic unit should be possible to convert for harvesting sweet corn ears, potatoes and beets.

2. A feed processing unit, that would be practical for individual farm units, to handle grain—including ear corn—hay, molasses and minor supplements. An economical materials handling system would need to complement this unit.

3. A light-weight, wide coverage unit that could be used to apply grass seed and nitrogen on wheat when the soil was relatively wet. It could also be used to apply herbicides, insecticides and supplemental fertilization on crops. This unit would need to be self-propelled, which might be accomplished with a pusher type propeller blade."

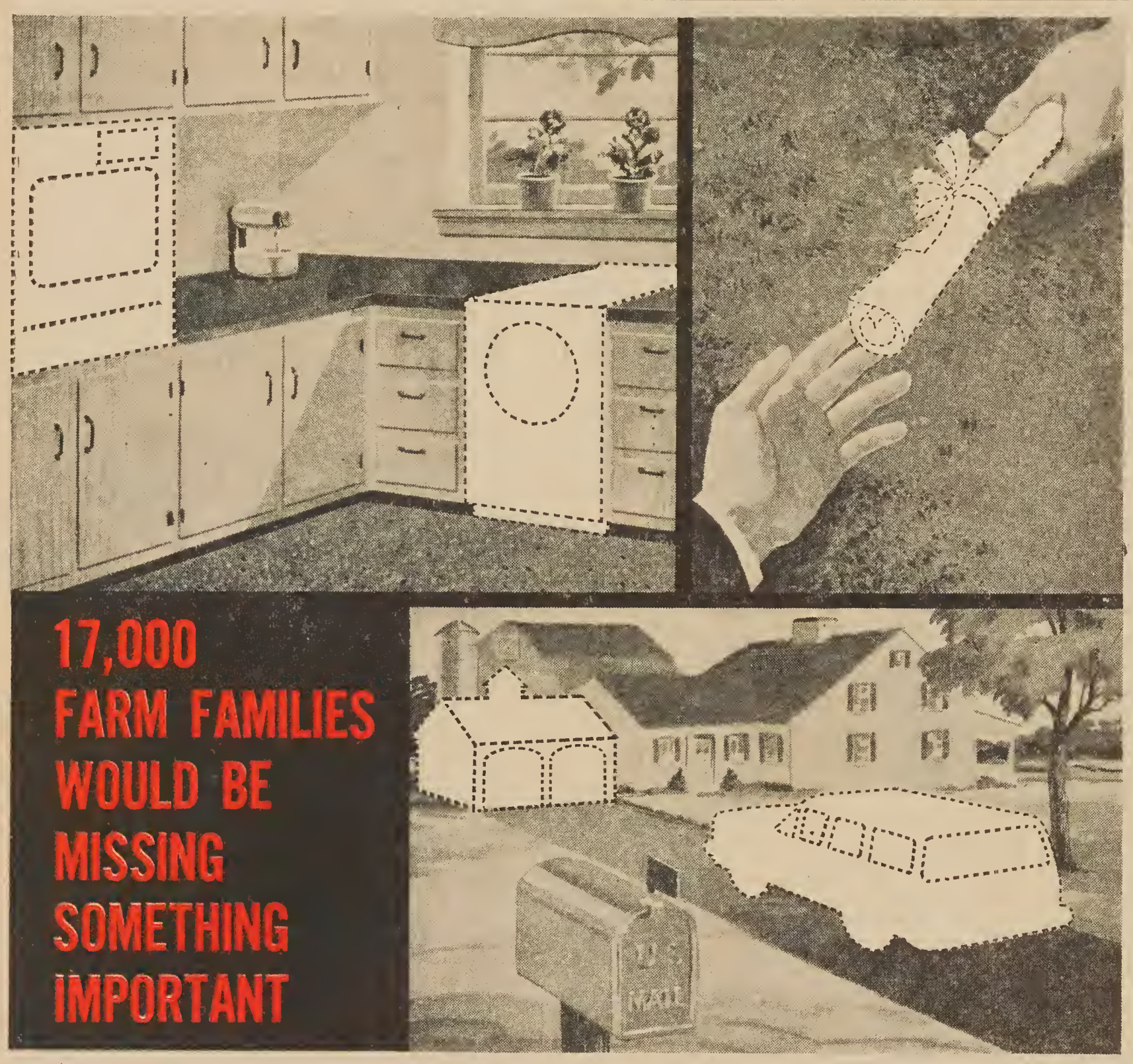
Fruit Country

Cy Small, up in the fruit area of Niagara County, was naturally concerned about items in connection with the orchards. He said:

"I think I would place first and foremost a mechanical harvester which would do for the fruit grower what forage harvesters have done for the dairyman. The continued need for large amounts of hand labor during harvest has prevented fruit growers from keeping pace with other farmers in the struggle to increase efficiency of production.

"I am not sure that I am right in

(Continued on Page 26)



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Country Pastor

Heaven's Window Sill

By ARTHUR MOODY

YEARS AGO I read a poem which went something like this:

"Arise in the morning
Lean thy arms awhile on
Heaven's window sill;
Then go forth to meet thy day."

Can we get some of the author's imaginative suggestions?



ARTHUR MOODY

Look in on Heaven: Check on standards before we walk into the new day. Get the heavenly perspective which corrects any astigmatism of the spirit. Get new strength for our hearts. There is a fresh air that blows away the fog from our vision.

Look out on Earth: The Heavenly look has cleared our sight. Now we can get a fair look at our task. It may be hard, heavy—even disagreeable—but you are better able to handle it. Your associates may be people who believe "God's in His Heaven, all's right with the world;" again, they may not so believe. You can help prove that recognition of His fatherhood helps brotherhood.

Look ahead: Do I dread the days ahead or do I welcome them? Nine-tenths of our tasks is "dread of them." When we tackle them the other tenth looks mighty thin. Practice perfects our efforts; it takes self discipline to practice. You may not be sure of your I.Q., but anyone can improve his E.Q. How many Efficiency Quotient "push-ups" or "pull-ups" can you do?

Improvement is the result—spiritual, physical, and work-wise.

DON'T—Rinse That Egg!

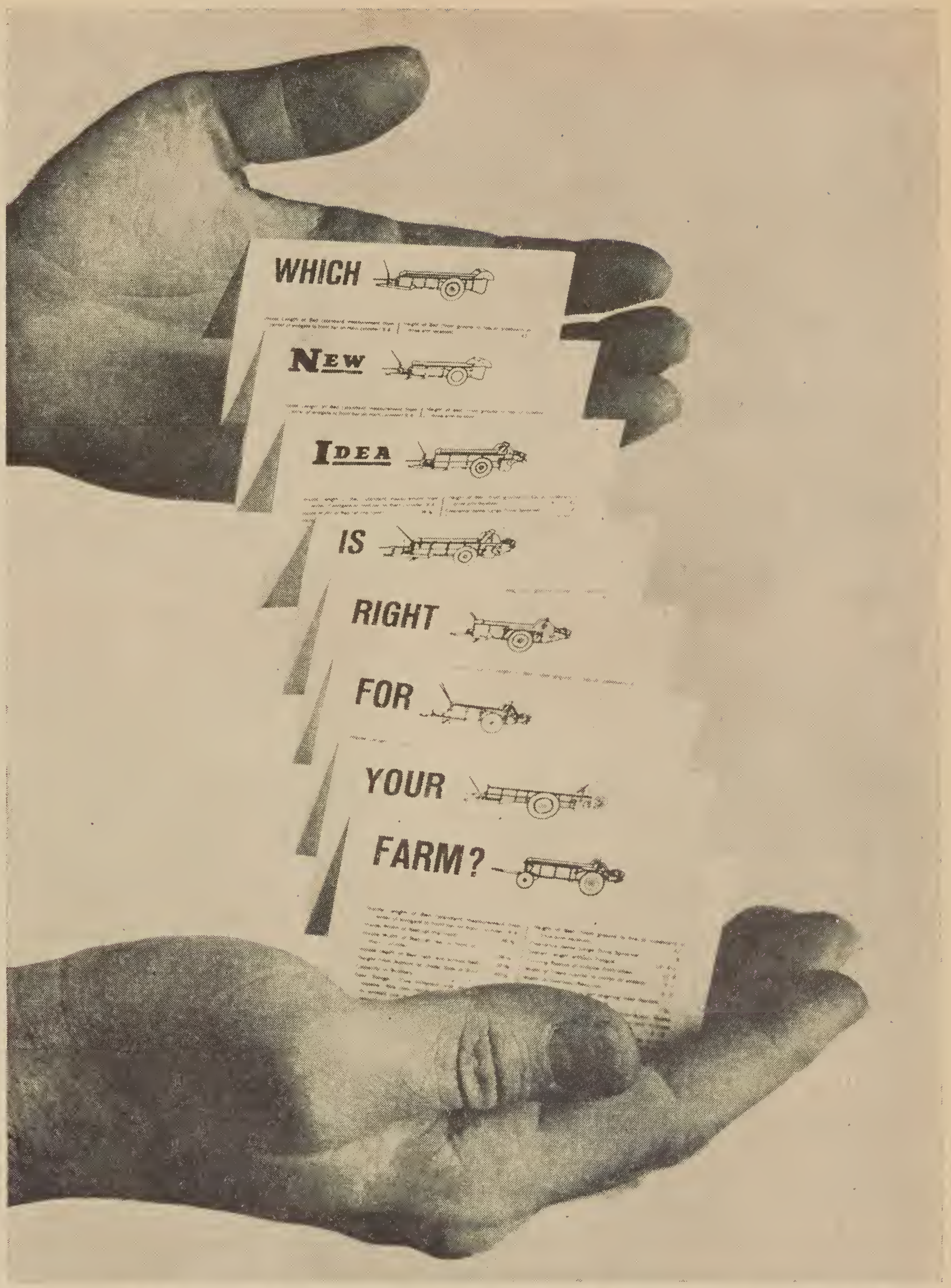
UNDOUBTEDLY the greatest mistake in washing eggs is the rinsing off of the sanitizer-detergent. Most of the sanitizers used in washing eggs today give long protection against bacteria; rinsing them off leaves the shells unprotected, and they may become recontaminated.

Some poultrymen say that they have to rinse the eggs after washing them to get off the loose dirt. The obvious answer to this is that they are not changing their wash water often enough.

I've seen poultrymen who not only rinse the eggs, but rinse them with cold water. This can be really serious, because the cold water for rinsing will cause the contents of the eggs to contract, and bacteria can easily be sucked in through the shell.

Last summer a poultryman who was producing about 100 cases of eggs a week suddenly ran into trouble with rots. Upon examination, we found that the only thing he was doing wrong was rinsing his eggs with cold water after washing them.

It is best **not** to rinse eggs after they are washed. If one insists on rinsing them, he should be certain that it is done with water warmer than the eggs, and preferably in water containing a sanitizer. — *Robert C. Baker, Cornell University*



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EQUIPMENT MANAGEMENT

By ED HARRISON*

DURING MY boyhood days on a modest-sized farm, our equipment could have been inventoried in terms of a few hundred dollars. Sure, we worked hard, and we worked long hours—and they were days to which I have no desire to return. Today, on the same-sized farm, the equipment would inventory in terms of thousands of dollars.

There is no question but that this modern equipment has removed much of the back-breaking toil and made farming easier and a more pleasant occupation. Can we, however, justify this increased investment in farm equipment solely on the basis that it has made our job easier? I don't think so. It is sound only if by its purchase we have been able to increase production, to improve the quality of the product we produce, and reduce production cost sufficiently to pay interest on the investment, and to set aside an adequate fund to insure its replacement when it is worn out.

Machinery costs present a problem that confronts every operator, and there is no simple solution. Certainly we must give up any thought of returning to the old days, so we must try to find a solution within the scope of a modern farming operation. Let us explore a few of the avenues through which we might find a solution that could prove helpful to the dairyman in his struggle to survive.

More Acreage

The most common solution offered is increased acreage that would result in greater use of the equipment. I am willing to admit that it is an approach that we should not bypass.

There is no denying that greater acreage would result in greater use of equipment. At the same time, greater use means greater wear and shorter machinery life. When considering increased acreage there are two things that we should never lose sight of: One, in farming an acre of land we are dealing with many fixed costs that have no correlation with yield. Secondly, we do not measure the production of foodstuffs in terms of acres but rather by the ton and by the bushel.

For these reasons, increased acreage would only be helpful when farmed in such a way as to result in **maximum yields.** All too often increased acreage over-expands the labor force, which in turn results in a poor farming job. In many cases more intense fertilization would greatly reduce the need for greater acreage.

Further, all forage crops grown on highly fertile soil are superior to those grown on soil lacking in fertility. Their rapid growth permits harvesting them at an earlier stage of maturity. This decreases the fiber content, and greatly increases the palatability. Plants grown on a highly fertile soil will be richer in minerals, and so will more nearly satisfy the needs of a high-producing dairy cow.

In my judgment the minerals that nature so skillfully builds into the growing plant are of greater value in the cow's ration than the inorganic minerals that man adds to the ration. While increased acreage can be helpful in solving our problem of machinery costs, I am convinced that it is not a complete solution, and that we still have other avenues to explore.

The complicated modern equipment with dozens of fast-moving parts is a far cry from the old horse-drawn equipment with a few slow-moving parts. There is hardly a single dairy farm operator who would not have to plead guilty to a charge of purchasing a complicated piece of this machinery and then putting it into operation before he had taken time to study it and understand how it operated. Then, in our anxiety to get a crop harvested, we sometimes postpone servicing it.

The old saying, "Haste makes waste," certainly applies to farm equipment. Failure to properly service equipment frequently results in ground-out bearings and broken parts, with large repair bills. We cannot measure the cost of such neglect by the replacement parts bill. To this bill must be added the cost of the man hours of labor lost, and sometimes crop damage from long delays in getting the machine back into operation.

I am sure we could greatly reduce equipment costs by setting up a definite servicing program. By servicing I don't mean merely squirting a little grease in a bearing. The entire machine should be checked for loose and missing bolts, the common cause of broken castings.

To properly service this complicated equipment we must take time to study it in order to gain a knowledge of its working parts. Design engineers have a way of almost hiding some of the important bearings, and it is very easy to miss them. Other bearings are so inaccessible that the service man actually needs a helper to turn a shaft a little one way or the other until the grease fitting reaches a point where it can be serviced.

Avoid over-greasing because it results in excess grease collecting around the bearing, where it gathers grit and acts almost like a grinding compound. Before storage, all equipment should be thoroughly cleaned and oiled to retard rust, the greatest destroyer of farm equipment.

Go Slower

Another thing that destroys farm equipment rapidly is operating it at too high a speed. To protect the life of farm machinery it is absolutely essential that the forward speed be adjusted to match conditions. Operating at high forward speed over rough ground surface causes excessive vibration. This continuous vibration loosens bolts and finally shears them off, causing a strain on one side of a casting that it was not designed to carry.

Continuous and excessive vibration also eventually will crystalize steel. This crystalization usually occurs in a shaft close to the point where it is firmly held in a bearing. I have seen shafts an inch or more in diameter snap in two like a piece of chalk after being subjected to continuous vibration caused by operating at high forward speeds over a rough surface.

Again, the forward speed must be adjusted up and down according to the density of the crop being harvested. For example, I have seen operators attempt to mow a heavy growth of hay when it was wet in the bottom with the tractor in second or even third gear. They were not making any time, because every 100 feet or so they had to stop the tractor and get off and clear the cutter bar. This is the surest way that I know to shorten the useful life of a mowing machine.

Had the tractor been put in low gear, which would have driven the cutting knives at high speed in relation to the forward speed, they would have had a chance to cut themselves free. Even though the forward motion might be slow it would have been continuous, and at the end of a given period time would have been saved. The same principles apply in the operation of many other pieces of farm equipment.

Farm Shop Pays

The most valuable housing space on any farm is a room that can be heated and is large enough to accommodate the largest piece of farm equipment. Even when the wind is howling, the snow blowing, and the temperature hovering around the zero mark, this room provides space where a man can work in comfort reconditioning the farm machinery for the next planting and harvesting season—which is never far away.

When we postpone putting the equipment in readiness for operation until the day we need to use it, we are losing valuable time. Then all too often we discover some broken part that must be replaced, and this causes another costly delay. In contrast, during the cold winter months the dairyman can find little to do outside, and the daily routine of caring for the cattle fails to provide full-time employment. These idle hours can be used profitably in getting the planting and harvesting equipment ready for operation.

In our struggle to cut machinery costs, I do not think that we should rule out the possibility of streamlining the cropping program in an effort to reduce the number of pieces of equipment necessary to carry out the operation. This applies especially to the operator with limited acreage.

Remember that, up to a high limit, machinery depreciation is figured more on age than on usage. Many small operations have become diversified in their cropping programs. This diversification means that they must maintain a complete line of planting and harvesting equipment which the operation cannot support. By concentrating on essential crops and eliminating all marginal crops, machinery costs could be cut almost in half.

In the past, machinery has seemed to hold an almost magnetic attraction to the dairy farmer. Let a new piece of equipment appear on the market and he had to purchase it. In the future, I believe that the purchase of all farm machinery must be based upon a proven need, and with reasonable assurance that by its purchase the efficiency of the operation will be increased sufficiently to justify the investment.

*Harden Farms, Camden, N. Y.

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(Continued from Page 9)

of control. And each different program variation has advantages and disadvantages in terms of costs, income protection, producer acceptance, and so on.

Basic Principles

But there are certain basic principles that must be observed in developing and operating successful supply management programs. Those principles are:

(1) Congress must determine the fair, or parity, prices for agriculture (or the range of prices and the guidelines for setting actual prices), for in setting parity prices the Congress is, in fact, determining fair prices for both consumers and producers. This is an equity determination, and Congress has the responsibility for making such equity determinations in our democratic society.

(2) When programs are adopted for specific commodities, the U. S. Department of Agriculture, as the agency with the technical competence, would set national marketing quotas for those commodities in such amounts as would clear the market at the determined fair, or parity, prices. And the national marketing quota for a commodity must necessarily vary from year to year with changes in demand and changes in the parity price determination.

(3) **Each farmer** each year would receive a **pro rata share** of the national marketing quota for the commodity involved. Depending upon the commodity, this market share might be stated in commodity units or acreage units.

(4) Provision must be made for each farmer to transfer his market share either by sale, rental or administrative rule. By this device freedom of entry and exit from farming would be maintained. Each farmer would be free also to expand or contract production as total supplies were adjusted to meet demand at fair, or parity, prices.

Many side programs could, and possibly should, be linked with a supply management program. We may wish to subsidize food exports to needy nations abroad for a number of reasons, and to establish and maintain a strategic national food reserve. Thus, the national marketing quota for any one year may equal domestic demand, commercial exports, subsidized exports, and national food reserves.

Furthermore, it might prove beneficial to both producers and consumers to operate loan, storage, and disposal programs to offset natural variations in yields. In years of below-average yields government-held stocks could be put on the market to hold prices at the defined parity, and in years of above average yields the excess supply could be acquired and placed in storage. This type of **bona fide** storage program would serve to stabilize marketable supplies, and ease the production problems of farmers arising out of weather uncertainty.

Supply management principles are readily turned into legislative proposals. Proposals are, however, less easily turned into practice. All the many interests in agriculture and the nonfarm economy come to bear on Congress in the legislative process. This is as it should be, but it does mean that the final program enacted into law will vary, and often widely, from the program proposal of the Administration, Democrat or Republican.

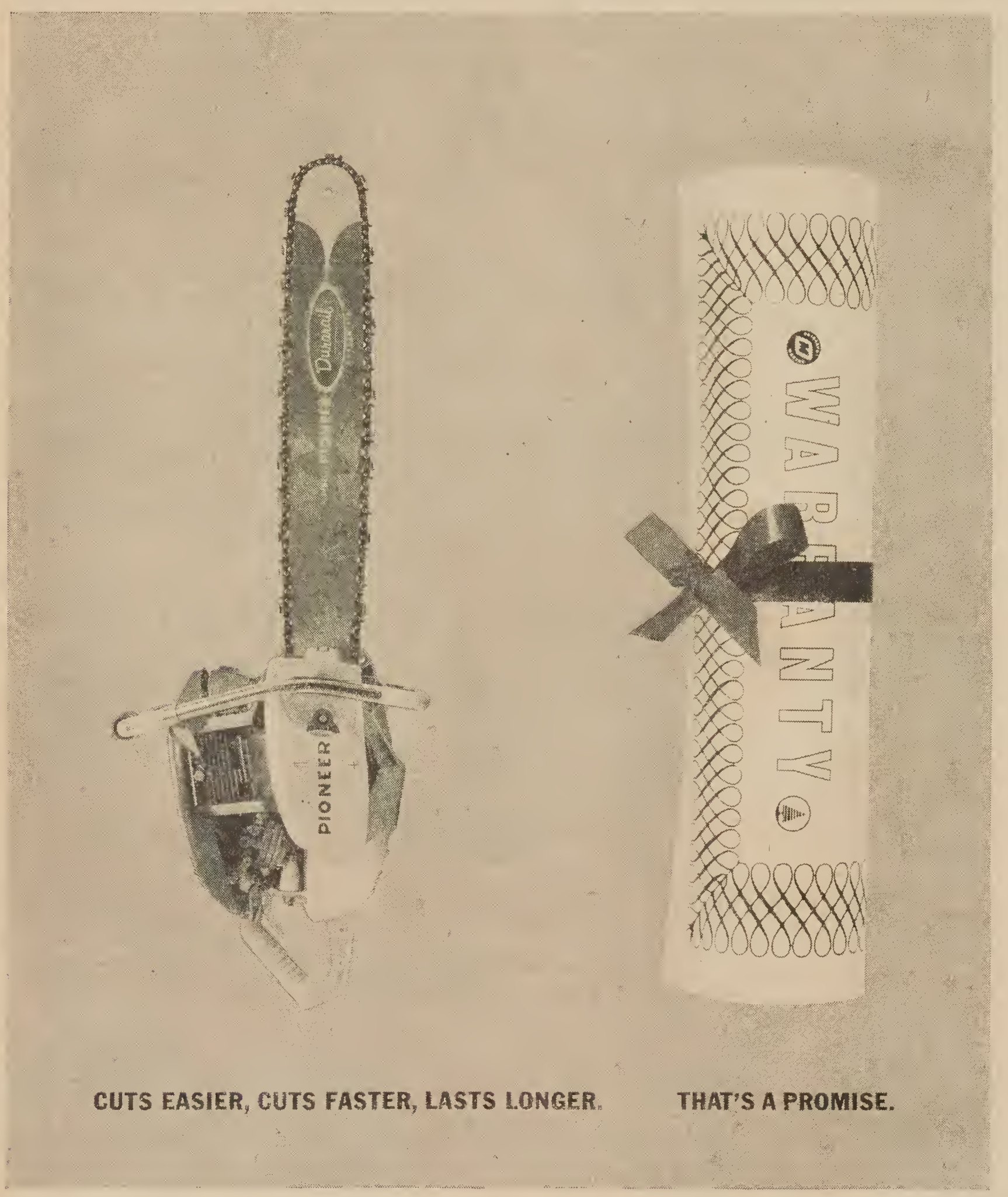
1962 Legislation

The voluntary feed grain program for the 1963 crop just enacted will continue the reduction in CCC stocks for the third successive year. This is progress. It is short of a permanent solution, however. Participation in a voluntary program is always an unknown quantity, and the costs of voluntary programs are always comparatively high. And non-cooperators under the present program can increase production and offset some part of the acreage reduction made by cooperators.

Three successful years of the voluntary feed program will, however, substantially ease the job to be done by a permanent feed grain program. Next year's feed grain legislation can be considered in light of carryover prospects that are near desired minimum adequate levels—a dramatic change from the excessive feed grain carryover of three billion bushels at the end of the 1960 crop year.

The final 1962 farm bill also provides a voluntary acreage diversion program for wheat in 1963 to operate

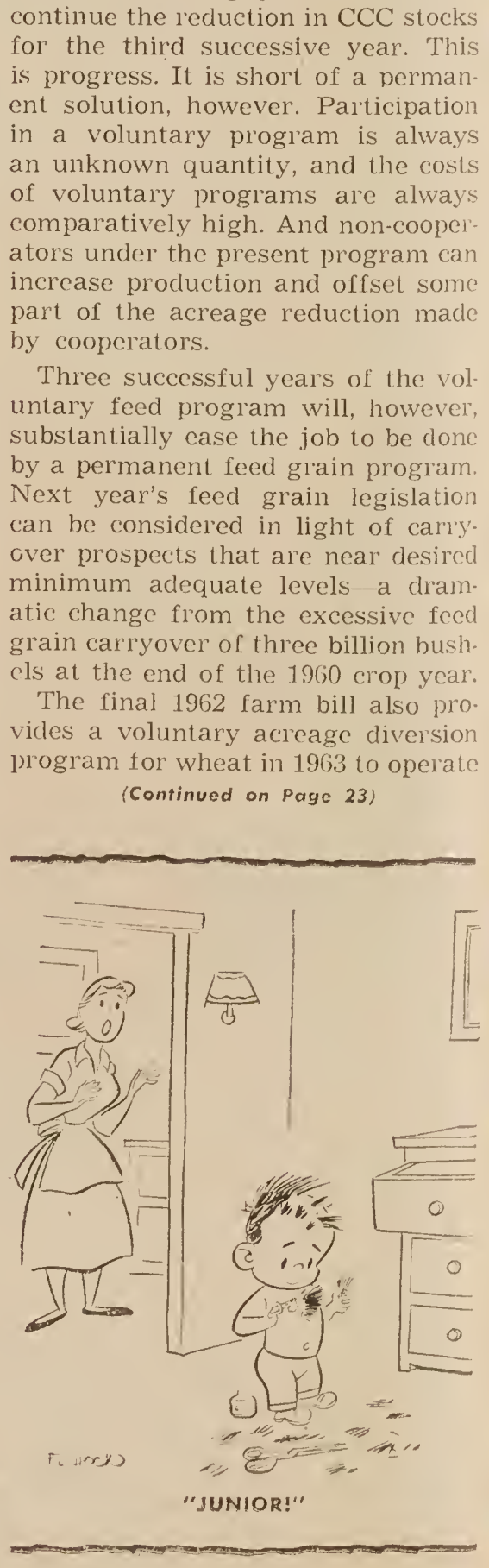
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(Continued from Page 9)

ing season. With much of the risk removed by the guaranteed prices, farmers can and do spend the time and money to get maximum yields. The government bids against itself when it fixes prices at a profitable level and, at the same time, asks farmers to reduce production.

5. **Yet another reason for the failure of government supply management is that the responsibility for farming decisions is transferred from farm families to a Washington bureau.** It then becomes a game in which those who are most resourceful or unscrupulous attempt to outwit the administrators of the program. Vast government programs with thousands of payrollers (110,000 now in the USDA) present an open invitation for graft, discrimination and favoritism. The Billie Sol Estes case was only a spectacular example that could be duplicated on a small scale all over the nation.

The maintenance of soil fertility on farms is a normal business responsibility. Public funds should be used only to alleviate great natural forces which are beyond the capacity of individuals or local communities to handle. Certainly no farmer can justify the expenditure of millions of dollars in federal funds to compensate farmers for the ordinary business expenses of limestone and fertilizer.

Summing Up

Through the ages, men have slowly progressed and bettered themselves and the world as they have learned to accept and share responsibility. The move to shift responsibility to the federal government, whether decided by democratic or dictatorial means, is a step backwards and could result in the decline rather than the advance of civilization.

Many well-meaning people, as well as professional "do gooders," look at the suffering and injustice that comes to many people in our free choice competitive economic system and immediately conclude that the remedy is government action. They ignore the remarkable record of progress which has brought the highest standard of living on earth to our people. They are impatient, and are not content to improve an already successful system. They urge the passage of laws to force justice when satisfactory progress can only come as individuals **voluntarily** accept the responsibility to deal justly and compassionately with their fellow man.

Government can and does help those in distress and those less fortunate; however, the substitution of force for individual responsibility is a dangerous thing. It is based on the theory that the end justifies the means, and this is in conflict with fundamental moral law.

Those who would turn to the rule of force argue that since the organization of labor is a desirable objective, compulsory unionism is justified. Likewise, when there is a surplus of wheat and adjustments are necessary, the government interventionist favors compulsory allotments for all wheat producers. If it appears that promotion and advertising would increase the sale of beef or other farm products, a compulsory check-off for that purpose is advocated. Since a few older people have neglected or been unable to provide for their medical and surgical care during their period of earning, the easy answer is to add medical care to the compulsory social security program. Each such demand for the use of compulsion further restricts the freedom of individuals to choose for themselves.

I am convinced that government intervention in agricultural price and production decisions has materially reduced farm income. Government payments and subsidies have been only a partial offset to the tremendous losses in price and income suffered by the producers of wheat, feed grains, cotton and other crops as a result of price-depressing government surplus disposal operations and the displacement of farm crops by substitute products.

Price supports become a ceiling as well as a floor, especially when surplus dumping is authorized and can be used with little regard to the effect on markets, as is the case under the feed grain program. We would have been much wiser if we had devoted a small proportion of the manpower, time and money spent during the last fifteen years on futile attempts to control production and rig markets, to a sustained effort to improve the operation of the competitive market.

Supply management is a worthy and important goal for agriculture, and it is essential to a properly functioning market; however, there is a vast difference between government supply management and supply management by producers. Government supply management substitutes political decisions for the discipline of the market place. Admittedly, the voluntary organization of the market power of producers to secure supply management in response to the market will be slow and difficult; however, there is no satisfactory alternative.

The American Agricultural Marketing Association represents Farm Bureau's determined effort to develop the machinery for supply man-

(Continued on Page 23)

DROUGHT BULLETIN!
ATTENTION DAIRYMEN!

Plentiful supplies of FLORIDA CITRUS PULP feed are immediately available! Abundant supply guaranteed for the winter and spring months ahead!

Over 74% Total Digestible Nutrients. Easy to feed. Low in cost. Your best buy in high nutrition feed.

New low freight rates add to your savings now. Order today from your feed dealer, or write for name of dealer nearest you.

HOW TO FEED FLORIDA CITRUS PULP

Citrus Pulp is a desirable bulky carbohydrate concentrate which is easy to handle and is readily accepted by cattle. Average daily ration should include from 8 to 16 lbs. of Citrus Pulp, according to your feeding program. ■ A cow weighing one thousand pounds should be fed approximately ten lbs. daily. It is not only an excellent lactation feed, but it can also be fed economically during dry periods because of its all-round feeding value. ■ Citrus Pulp is rich in calcium, magnesium, and other minerals. It is also being used successfully in the making of grass silage.

Write today for free information bulletin

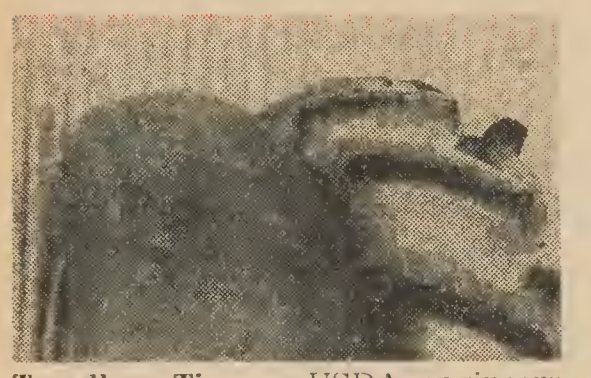
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Please send information on
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Name
Address
City Zone State

Florida CITRUS PULP

FLORIDA CITRUS PROCESSORS ASSOCIATION
P.O. Box 780 • Dept. AA • Winter Haven, Florida

Here's Something New!



Treadless Tire — USDA engineers have been testing an experimental smooth tractor tire which in tests has outpulled the regular tractor tire by 40 percent. It is believed that the smooth tire (the cords of which are constructed in parallel layers instead of diagonal) has a more stable casing and makes more uniform contact with the soil; also that the flattened tread base and the narrow rim (only 3½") makes for better distribution of weight over the soil.

Crib Liner — Farmers without corn-drying facilities, but who want to store limited quantities of high moisture shelled corn, might want to try a new lining that has passed two years of favorable testing at the University of Illinois. The material is a heavy, waterproof fiberboard coated on each side with a layer of polyethylene film and aluminum foil.

It has the rigidity of heavy cardboard, but is easy to cut, crease or bend to fit the interior of any crib or metal bin. In fact, it can bend to nearly a 90 degree angle without breaking the aluminum coating. The material is held in place by large-headed roofing nails in wood cribs and bins; with bolts in metal bins.

The cost is estimated about 10 cents per bushel of grain stored. For further information, contact the Agricultural Engineering Department, University of Illinois, Urbana.

Pesticide Drift — A new spraying process has been developed by Stull Chemical Company, San Antonio, Texas, in collaboration with the Southwest Agriculture Institute in San Antonio, which will enable herbicides to be placed accurately within a target area, even under relatively windy conditions. The process has been tested particularly with helicopters spraying rights-of-way, such as the control of brush growing under high power lines, etc. A ground rig is also available.

Better Coverage — Know how your comb sometimes "sticks" to your hair, and you say "I'm full of electricity?" Well, there's a new type of machine in the works that charges spray and dust particles electrically, and makes it possible to use smaller particles and get better coverage. Two or three companies are expected to have it on the market soon.

Bloat Preventive — Veterinary scientist Roy Nichols of the University of Wisconsin reports a 96 percent control of bloat with a daily feeding of a detergent-like compound called alkyl aryl sulfonate, mixed in a special preparation of grain. Fed to 24 dairy animals for about four weeks this summer, only two "swellers" were observed; more than half the untreated cows were observed to "swell" during the test.

Nichols feels that the material—a coated vermiculite detergent material—works by inhibiting a peetic enzyme which causes a "jelling" or thickening of a cow's rumen contents, and also by lowering the surface tension of the rumen liquid; both actions allow gas to escape more readily when the cow belches.

Cost of treatment is reasonable for dairy cows, Nichols says, and probably would only be needed during the seasons when lush pasture is likely to cause bloat—and in the feedlot during finishing. He feels it might be too costly for routine treatment of beef animals.

The material will have to be passed on by the Federal Food and Drug authorities before it can be put on the market.

New Machines — A commercially-built prototype of a dry bean combine has been built for use in New York State this harvest season. Beans are not pulled; the combine harvests them directly from the row. Although chemical defoliation is not required, it's considered to be highly desirable to hasten the ripening process.

Savings of labor are made because no pulling or raking is necessary, and the crop losses involved in these two steps are also eliminated. Total harvesting time is considerably speeded up and researchers also say that harvesting can be continued very quickly after a rain. When the crop is pulled and windrowed, a rain usually delays harvesting for some considerable time, and oftentimes the windrow is turned over to hasten drying, thereby increasing field loss.

In another development of equipment, a mechanical grape harvester has been custom built by the Chisholm Ryder Company for use on about 50 acres of specially trellised grapes this fall. The Concord Grape Research Fund has contributed to the building of this commercial prototype.

Cooler — First developed to cool space vehicles re-entering the atmosphere when they reach temperatures of several thousand degrees, liquid nitrogen is now an accepted coolant in the industrial field. The

$1,527

HIGHER INCOME for herds switched to BEACON Dairy Feed Programming



More than 3300 cows in 82 herds prove it! Herds switched to Beacon increased milk and fat production, averaged $1527 greater income over grain cost right off—in just 12 months. Read about this summary of DHIA records and what it can mean to you.

How can you increase income from your herd? One way is by changing over to BEACON DAIRY FEED PROGRAMMING.

Why?

Because BEACON DAIRY FEED PROGRAMMING helps cows increase performance year after year. It is a program of *precision feeding* to bring out fully each cow's inherited capacity for milk and profit.

For proof, here are summaries of actual DHIA records for 3300 cows throughout the Northeast.

Results show that the typical cow switched to Beacon produced 978 lbs. more milk and 39 lbs. more fat, for an increased income over grain cost of $1527.00 per herd!

BEACON DAIRY FEED PROGRAMMING
Results from 82 DHIA herds

	Pre-Beacon	First Year on Programming
Total cows	3,340	3,388
Ave. per cow:		
Milk (lbs.)	11,384	12,362
Butterfat (lbs.)	425	464
Grain fed (lbs.)	3,450	3,719
Grain cost	$142	$156
Income over grain cost*	$421	$458

*Same price of milk used for both years.
Many other herds are also benefiting from the program, but the report is restricted to those where testing data are available to us.

These increases are just for the first 12 months. Herds on the program for two years *again increased the second year.*

Has every herd that switched to Beacon achieved an increase right off, the first year? No. *But 9 out of 10 have.*

Call in your Beacon Advisor

He is highly trained and widely experienced in putting the 4 steps in BEACON DAIRY FEED PROGRAMMING to work for you. Based on past results, chances are 9 out of 10 he can help you step up net income right away—the very first year. Why not call him today?

BEACON FEEDS

Beacon Division of Textron · Cayuga, N.Y.

latest use is for refrigerated trucks, and boxcars carrying produce.

Kept at temperatures of 320 degrees below zero in special nickel, stainless steel and aluminum vacuum containers, the liquid is squirted by a thermostat-controlled valve to cool to any desired temperature instantly.

The system is being tried out on commercial refrigerated trucks and boxcars in Canada in the next few months. Tests in the United States have indicated that the new method can compete in price with conventional refrigeration equipment in these vehicles.

Limestone-Treated—Tests at Purdue University and at the University of Ohio with feeding corn silage treated with limestone have proved very successful. In the Purdue tests, 10 pounds of feed-grade limestone was added to each ton of silage as it was blown into the silo. When removed for feeding, the silage showed more green color and tested 3.5 times higher in carotene than regular corn silage.

Cattle ate the silage better; consumption was 13 percent higher than for regular corn silage; and with 2 pounds of protein supplement fed, the silage gave faster gains — and the cost of gain was about the same as for regular corn silage.

New Thinner—The insecticide Sevin has found a new use — for post bloom thinning of apples. (It has not worked as a fruit thinner on other fruits). It compares favorably with Napthaleneacetic acid (NAA) and Naphthylacetamide (NAD) over the same bloom period (21 days following full bloom), shows even less influence from environmental conditions, and causes no leaf injury. In addition, the degree of thinning does not vary greatly over a wide concentration range.

Appropriate concentrations of Sevin for thinning apples, based on research results, range from 1 to 2 pounds of the 50 percent wettable powder per 100 gallons.

Weed Chopping — Recent research at the University of Massachusetts Experiment Station has been directed toward a harvest method of field chopping green tobacco, and fermenting the harvested material through a forced sweat process. Reconstituted cigar binders were manufactured from the fermented product, and placed on experimental lots of cigars. Most smokers could not distinguish any difference between these cigars and those made from the standard sheet binders.

Replace PTO? —The latest auxiliary power device to appear on agricultural implements is the hydraulic motor. Such a motor is run by the movement of hydraulic fluid being pumped through connecting hoses from the hydraulic system of a tractor.

These motors are being sold either as optional attachments or standard equipment on mowers, elevators, conveyors, self-unloading wagons, manure spreaders, and many other machines. Advantages claimed include simplicity of operation and upkeep; flexibility (sharper turning. with rear-mounted tools, etc.); safety, in that it eliminates the danger of long rotating shafts and when uncoupling; and others such as the fact that it is not adversely affected by corrosive material; the entire drive runs in oil, etc.

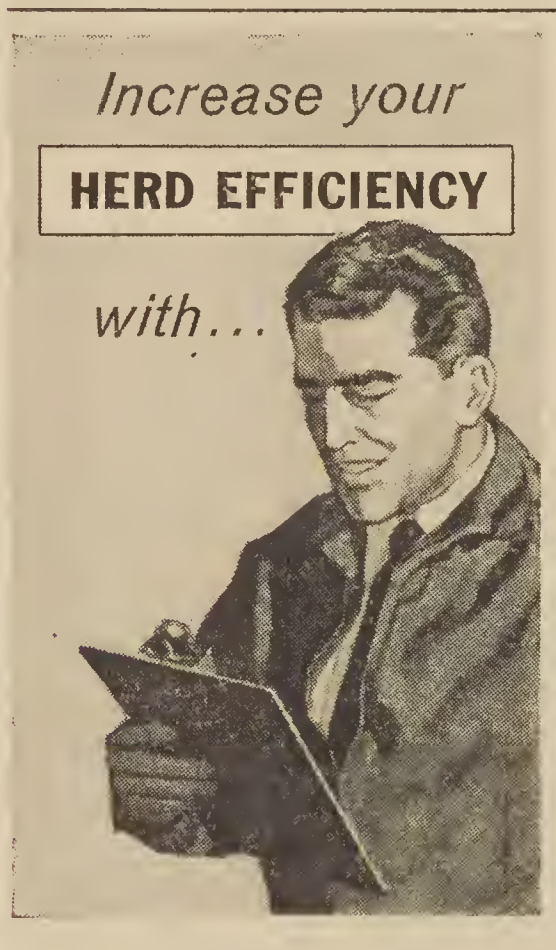
But there are disadvantages, too, the greatest of which is the non-uniformity of tractor hydraulic systems. These vary considerably from one manufacturer to another, and even from one model to another. In some cases specially-geared hydraulic motors must be supplied, which raises costs.

Another big disadvantage is the possibility of the tractor hydraulic system operating inefficiently. It may conform to the specifications required by the motor manufacturer, but be so inefficient that it can be operated only for short periods of continuous usage. Even though some drives require only intermittent usage, the inefficiency results in low horsepower output, and may not operate the machine properly.

Controls Wilt — Professors P. M. Miller and L. V. Edgington of the Connecticut Agricultural Experiment Station, New Haven, have demonstrated that the addition of paper scraps or sawdust to the soil helps to control verticillium, which causes wilt. The intensity of wilt infection is tied to the number of meadow nematodes in the soil; mixing chopped paper with the soil reduced the meadow nematode numbers by encouraging the development of large populations of other, non-destructive nematodes. Actually, during the experiment the wilt fungus increased—but without the help of the meadow nematodes did not readily infect the tomatoes that were used as test plants. Addition of sawdust discouraged the development of all nematode species.

Discount Houses — Although many people are not yet aware of it, discount houses have moved into the food trade—and this aspect is expected to grow, particularly in area of low population density, where retail development has been slight. A food chain may buy control of a general merchandise discount house and add a food department; or the general discount house may add its own food department—or lease it as a concession—or new ones start off by including a food department at the start.

As price competition between discounters and conventional supermarkets intensifies, both will be forced either to operate more efficiently, or to exert price pressure back to growers and processors.



"Space Basket" — Cost of labor in pruning fruit trees can be cut in half with the use of a new device, according to the U. S. Department of Agriculture. The equipment consists of two pivoting arms with a basket at one end, attached to the hydraulic lift mechanism of a tractor's front-end loader.

A man with pruning equipment stands in the basket, moving it in whichever direction he wishes, while the tractor driver can prune the lower branches. The equipment was developed by Engineer Scott L. Hedden of the USDA's Agricultural Research Service and Professor Clarence M. Hansen of the Michigan Agricultural Experiment Station. Write to the U. S. Department of Agriculture, Washington, D. C. for further particulars; **the equipment is not yet commercially available.**

Increase your

HERD EFFICIENCY

with...

the help of your

BEACON ADVISOR

For higher herd efficiency, use BEACON FEED PROGRAMMING to bring out each cow's full inherited capacity for milk. Beacon Feed Programming helps you stop costly overfeeding of low producers and underfeeding of high producers by discarding old-fashioned fixed grain-to-milk ratios. Instead you use precision feeding to get full potential from your cows...from your roughage...from your investment.

First Step: Roughage Analysis

Ask your Beacon Advisor to program your herd. As a first step, he sends a sample of your roughage to the Beacon Laboratory. An accurate nutrient analysis helps him select the correct, most economical grain protein level. The Beacon Advisor then works closely with you to program feed for every cow. He uses the Beacon-developed Grain Feeding Tables which take into account differences in roughage quality, body weight, milk production, butterfat. Together, you bring each cow to new high levels of performance and profit.

Call in your Beacon Advisor

You'll find him a widely experienced professional deeply interested in the business of dairying. He helps you program each cow regularly to feed out all the milk right up to inherited capacity—for higher herd efficiency and greater returns over feed cost. Call your Beacon Advisor today.

BEACON FEEDS

MERCK

CATTLE HEALTH BULLETIN

CALF SCOURS IN YOUR HERD? THIS KILLER CAN BE LICKED!

This acute, highly infcetious and deadly disease of young calves is characterized by profuse, watery, light-colored bowel movements. Several bacteria, including *Escherichia coli,* organisms of the *Salmonella* group, and a virus *(Myagawanella bovis)* have been incriminated as possible causes of infection.

Some outbreaks of scours occur (in the presence of one or more of these infective agents) as a result of the lowering of the calf's resistance. This may be due to one or more factors, such as improper disinfection of the umbilical cord at birth, failure to supply an adequate feeding of colostrum or first milk, poor diets or faulty feeding habits, deficiency of vitamins A and D in the dam's diet, sudden changes in the weather, and undue exposure to cold, drafts or unsanitary quarters.

Affected calves, weakened by the persistent scouring and dehydration, are particularly susceptible to fatal outbreaks of pneumonia. Recovered animals are sometimes unthrifty in appearance and are slow in making normal weight gains.

TREATMENT WITH SULFASTREP HELPS CUT LOSSES

The TREATMENT of scours can be effectively carried out with SULFASTREP® *Boluses. These boluses contain three hard-hitting drugs with a wide range of antibacterial activity. Two of these drugs . . .* SULFATHALIDINE® *and streptomycin . . . go to work in the gut itself where they are most needed. The third drug, sulfamethazine, gets into the bloodstream to help check infections that "spill over" into the circulatory system.* SULFASTREP *also contains kaolin to adsorb bacterial toxins and provide a protective coating for the intestinal tract to help shorten recovery time.*

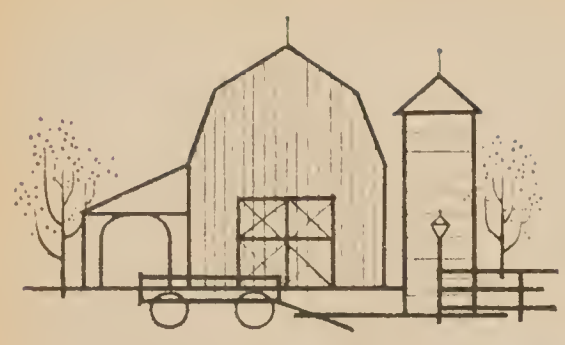
DON'T LET SCOURS GET STARTED

Sanitation, warmth and proper feeding are key factors in *preventing* outbreaks. Disinfect the navel with tincture of iodine at time of birth. Make sure the calf has an adequate supply of colostrum for at least 24 hours after birth. Try to avoid overfeeding or exposure to cold, drafts and sudden temperature changes.

Give 1-2 SULFASTREP Boluses *to calves daily for 3 to 5 days after birth. Extra Vitamin A and D Mixture, a Merck product, may be fed to cows during the last three months of gestation.*

NOTE: For best results with SULFASTREP *and other Merck Animal Health Products, consult a veterinarian for diagnosis and advice before administering.*

Merck Chemical Division, Merck & Co., Inc., Rahway, New Jersey.

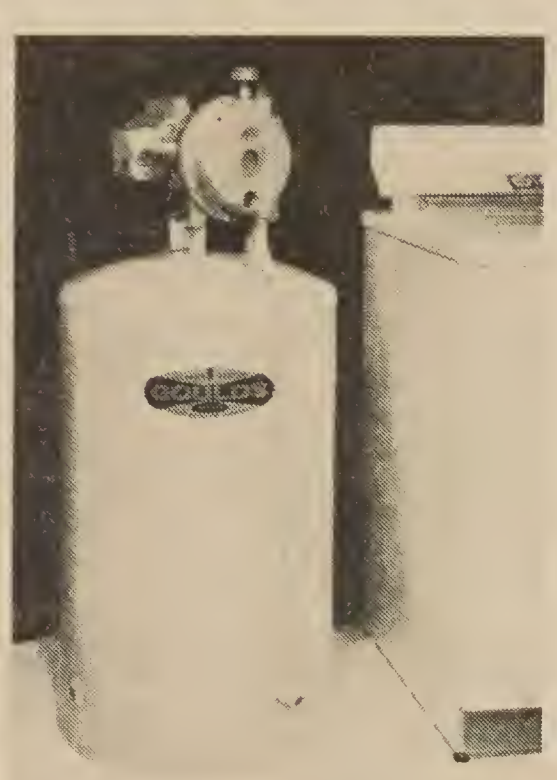


Goulds Perma-Flow System offers a new degree of dependability and beauty

NEW

Water system won't waterlog, never needs repriming





What's the major cause of water system breakdowns? The pressure tank filling up with air. And the new Goulds Perma-Flow puts an absolute end to this problem. Reason: the famous Goulds self-priming jet pump is mounted on a Medalist® Perma Pressure tank. This is the patented tank that has an air seal which keeps the air and water in the tank separated. Great idea, but how good is it? This good: The tank and all its dependability features are *guaranteed for 5 years*. Many other advantages to this system. See your local Goulds dealer.

This is a pump, but with true appliance beauty. The two-tone blue finish is in stylist-selected colors. Its beauty is second only to its dependability. The pump has a baked-on, corrosion-resistant finish, and the tank has an exclusive Everglaze® metallic lining. The Goulds Perma-Flow is a completely corrosion-resistant system. Also, the built-in air seal keeps air and water separate and stops oxidation. The Perma-Flow can be found only at your Goulds dealer. Why not see him soon. He offers the new Goulds Water System on easy monthly terms.

Medalist and Perma Pressure are registered trademarks of Metal Coating Corporation

GOULDS PUMPS

FREE... WATER PUMP SELECTION GUIDE

This 12-page booklet is packed with facts about wells and water systems. Tells you what to look for in both wells and water systems. Gives data and ratings on both jet and submersible types of pumps. Diagram in book shows Perma-Flow tank principle of operation and lists additional benefits.

GOULDS PUMPS, INC., Dept. AA-112, Seneca Falls, N. Y.

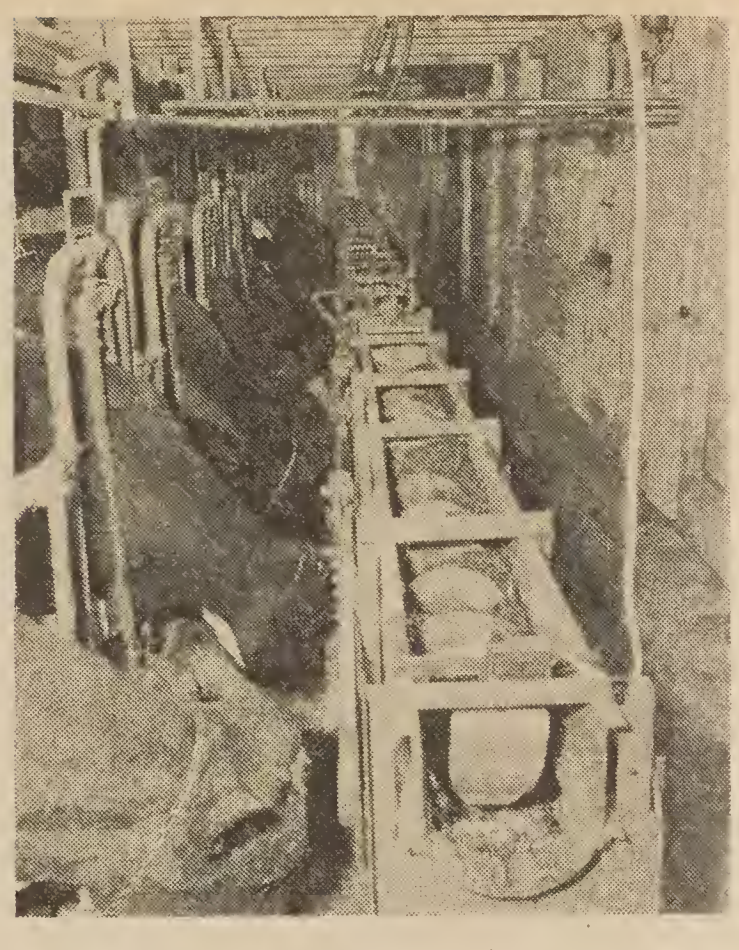
Please send the Goulds Water Pump Selection Guide to:

Name_____

Address_____

City_____ County_____ State____

Here's the setup at the University of Wisconsin to feed silage automatically.



No-Sweat Silage Feeding

MECHANICAL feeding of silage in a stall barn has been studied for several years by the scientists at several colleges of agriculture.

The first trials at the University of Wisconsin were with a 10 inch diameter screw conveyor with a 10 inch pitch, but that was found unsatisfactory for conveying long chopped hay. A 12 inch diameter auger was reasonably satisfactory; a 14 inch one was found to work very well. But the cost of this large-size equipment, together with the problems of quickly adjusting the feeder to handle hay or silage, led to the discontinuance of further study along this line.

However, the experience of some dairymen indicated that it is possible to use silage only as the forage portion of the ration and eliminate hay entirely. This made mechanical feeding of forage appear much more practical, and research at Wisconsin was resumed in 1960. Corn silage only—grass silage only—or a combination of the two—can be used.

There are some endless chain barn cleaners being used for mechanical distribution of silage in Wisconsin, and a few in Pennsylvania and New York. It has been found that this works best when the cows face in.

Excessive Wear

One problem is the excessive wear in the bottom of the manger. To counteract this, some have installed sheet metal bottoms, and it is believed that very high grade concrete will successfully resist this wear.

Automatic feeding of forage (with a 7 inch auger) is being used at the University of Wisconsin Experiment Station. Professor Floyd Duffee, agricultural engineer, is project leader in developing the system. Silage from the silo unloader goes into an auger-type conveyor, then to chutes discharging into a long trough in the feeding alleys, where an auger moves the silage to each cow.

Under the trough and in front of each cow (12 cows in each stanchion row) are large sheet metal boxes. 45 pounds capacity. These boxes fill as the stream of silage whirls down the trough. The boxes can be adjusted to feed each cow the exact amount wanted; moveable ends slide one way or the other to change the capacity of the box, and by moving the end the size of the opening is also changed.

Near the end of the feeder is a trip switch which automatically stops the silo unloader, and another at the end of this feeder stops the entire system. By this method very little silage remains on the conveyor, which prevents freezing or stale feed.

When all the boxes are filled, a button is pushed and the feed boxes slide open to drop the silage into the manger.

The system operates on about 6 horsepower, and the cost for electricity would come to only about five cents per feeding. The initial installation makes up most of the cost—and the system could be expanded to feed as many as 200 cows.

Characteristics of the mechanical feeder described include:

It can be installed in existing barns with a minimum of barn remodeling.

The amount of silage fed to each cow can be easily and accurately regulated.

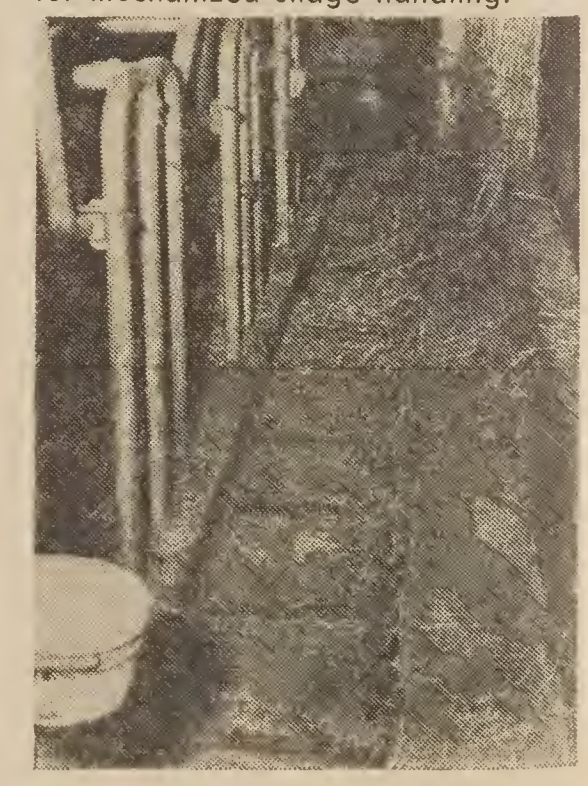
The feed can be shut off completely at empty stalls.

The system can be essentially automatic—that is, the operator starts the equipment, including the silo unloader, and it will shut off automatically when all the mangers are supplied.

It can be used for any number of rows of cows in the barn.

At this time it is difficult for many farmers to accept the idea of eliminating hay from the dairy cow ration, and, although interested, they remain non-committal on the new idea. But it is taking hold gradually over various areas of the United States.

C. E. Baldwin of Canton, Pennsylvania, uses a modified gutter cleaner for mechanized silage handling.



NEW GLF REDI-GRIP INSTALLED



1955



1956



1957



1958



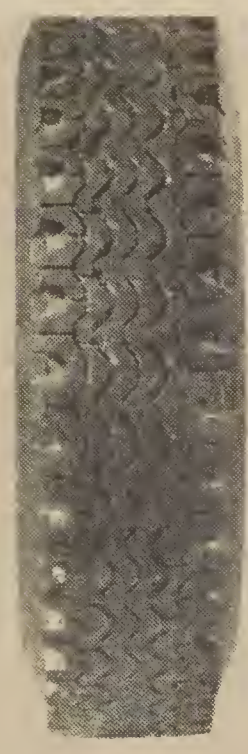
1959



1960



1961



Same GLF Redi-Grip Eight Years and 35,000 miles later.

1962 (actual tire)

The GLF Tire That Never Tired

In 1955 this tire was one of a pair of tough GLF Unico Redi-Grip snow tires mounted on a 1953 Willys. They took the owner through heavy snow. Up and down hills. Over slippery ice. In and out of mud. Surely. Safely.

These rugged Redi-Grip twins have been around seven winter seasons now, doing the same job. Over and over again. And after 35,000 miles, they're still going strong.

Why? Because Redi-Grips have extra shoulder depth for better grip—when and where you need it. A wider tread than 3 of the 4 leading brands. A deeper tread—.57 inch—that's deeper than 4 of the best-known makes. And dependable nylon cord for a tough carcass...extra safety.

Redi-Grips don't stop there. They are so tough and safe we don't bother with time or mileage limitations in our guarantee. Drive them one year or ten. Your GLF guarantee will protect you against defects and road hazards for the full life of the tire.

With Redi-Grips you go and keep going when it's cold outside. No stops for shoving or shoveling. Unless you want to help a neighbor.

Pick up a pair at your nearby GLF store today. Special price on the 7.50x14 black nylon tubeless Redi-Grips now $18.88 plus tax —regularly $27.95. Mounted free, of course. See for yourself why this tire never tires.

WIN A PAIR OF REDI-GRIP SNOW TIRES*

Complete the last line of our jingle and win a free pair of GLF Unico tires for your car. It's simple and fun to try.

GLF Redi-Grips dig in and go,
In the thickest of mud, slush or snow:
They are ruggedly built,
Guaranteed to the hilt;

Entry blanks and complete contest rules at your GLF store.

75 winners—150 free tires.

Contest closes Nov. 30. **Enter today.**

*Or your choice of two GLF Unico Power Cruisers or Power-Liners.

Cooperative GLF Exchange, Inc.

GLF Quality

SPECIAL OFFER to GLF Motor Oil Patrons



This big red 15" x 19" tractor Safety Flag can be yours at no extra cost, together with pole and mounting bracket if you buy 3 GLF Oil Filters and 30 gallons of GLF Motor Oil at regular prices. The flag is made of heavy weather-resistant cloth, with two big metal grommets. The 6 ft. steel pole fits into the mounting bracket ready to attach to your vehicle. It's a $3.00 value.

GLF 10-W-30 Motor Oil provides you with superior lubrication in today's high powered, high output engines. This multi-grade oil gives you the easy starting and quick lubrication of the best "winter" oils plus the heavy duty service features of superior summer oils. Give your engines the best in modern lubrication—GLF 10-W-30 Motor Oil and GLF Quality Oil Filters. Order 30 gallons and 3 filters now and we'll give you the big tractor safety flag and pole at no extra cost. Why not place your order today at your local GLF Petroleum Plant?



GLF Petroleum Service

During the past 48 years

The Farmers and Traders Life Insurance Company, through the free enterprise system, has made it possible for people to provide security for themselves and their families through individual and group life and health insurance plans.

Individual Freedom of Choice is An American Heritage That Must Never Be Lost.

Farmers and Traders Life Insurance Company
Syracuse 1, New York

A Grange Sponsored Company



Vote On Propositions and Amendments!

By HUGH COSLINE

THE VOTE on amendments to the New York State Constitution is always light, which means that important matters are decided by a small percentage of citizens. When you enter the polling booth it is too late to consider both sides; therefore, it is important to reach your decision before Election Day.

With the hope that it may be helpful to you, here is a brief explanation of the proposed amendments and propositions, with an expression on how and why I intend to vote. Study each question and vote according to your convictions.

PROPOSITION I — This would authorize New York State to go in debt for an additional $25 million to buy land for conservation and recreation purposes. Revenues from State-operated recreation facilities would go to pay interest and (hopefully) to retire the principal. This would be added to the $75 million provided in 1960.

I shall vote "Yes"—but with some reluctance.

PROPOSITION II — This would provide State rent subsidies to the tune of $3 million THE FIRST YEAR, to help put "low-income" families (incomes ranging from $5,000 to $7,500 a year) into middle-income housing projects.

This would mean that the present State government program of subsidies for government-owned housing would be extended to include cash gifts to subsidize privately-owned middle-income housing projects. In return, the housing companies owning those projects would reduce the rent on 20 percent of their apartments to the extent of the difference between the regular and the subsidized rent. This would as presently planned cover 5,000 families, and the State plans are to extend it to 25,000 families over a five-year period, which would bring the yearly amount up to $15 million.

Thus, a proportion of those so-called low-income families would be subsidized through the taxes of the rest of us—including many of us who earn less than those who would be subsidized.

Home builders have demonstrated their ability to provide good housing within the economic reach of middle-income families of the State, without cost to the taxpayer or subsidy by the community. In fact, all business benefits, and the tax base is increased in the communities.

This proposition rates a big "NO" from me. I can see no sense to any subsidized government housing.

AMENDMENT I — This would merely repeal certain sections of the State Constitution which are covered by law.

I expect to vote "Yes."

AMENDMENT II — This is designed to eliminate obsolete provisions of the Constitution.

I shall vote "Yes."

AMENDMENT III — This would strike out the detailed provision for a State Militia and replace it with a broader, simpler statement. The State Militia exists because of State and Federal legislation rather than because it is provided for in the State Constitution.

I shall vote "Yes" on Amendment III.

AMENDMENT IV — Here again the repeal of Section 37, Article 3 of the State Constitution—and its replacement with a new Section 3—will bring no real change in the manner in which State Senate districts are set up.

I shall vote "Yes."

In many cases farm organizations have analyzed and taken a stand on these propositions and amendments. By all means read any information that is sent you, and if you are in doubt, ask questions.

Also, by all means vote on them as well as for your chosen candidates!

League Meets

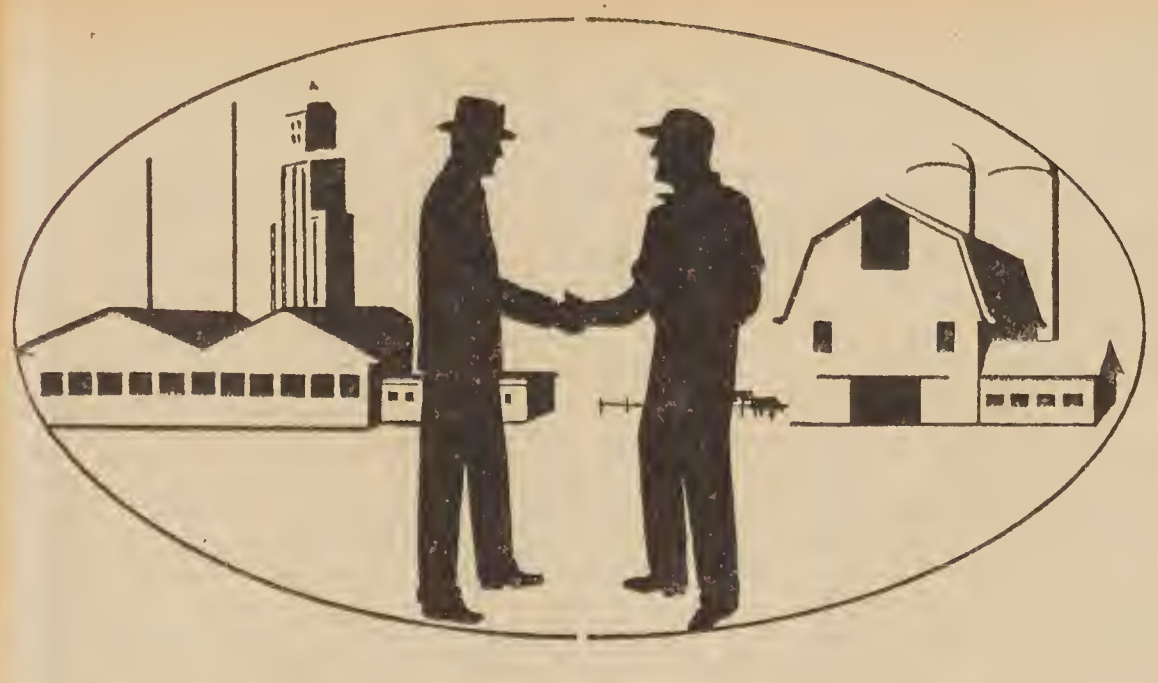
About 1,800 officials and members attended the two-day annual meeting of the Dairymen's League Cooperative Association in Syracuse, October 10 and 11. It was reported that the League handled almost 3,500,000,000 pounds of members' milk in the fiscal year ending March, 1962, with net sales of $193 million, an increase of almost 200 million pounds of milk and some $2 million over the preceding fiscal period.

Resolutions

The delegates adopted 15 resolutions, including authority to the board of directors to develop and take action on dairy programs that would best serve the members, and opposing any amendment of Order 2 which would provide for a negotiated hauling charge for milk. The delegates commended the U. S. Department of Agriculture for "prompt and effective action in meeting the situation created by the Lehigh decision and in giving early consideration to permanent order amendments."

Urged was adoption of uniform sanitation requirements; that the State Conservation Department declare a year-around open season on raccoons in areas where their numbers are destructive; revision of statutes and regulations to assure that farmers bear only their fair share of real estate taxes; and prohibition of the sale of raw milk—that its use be limited to "a substantial commercial sale"; also that "its use by farm families, farm employees, friends and neighbors be not so restricted."

Elected as a new director was Floyd S. Corselius, Clarks Summit, Pa.; all other officers and directors were re-elected.



Partners In Progress

By R. B. GERVAN*

ONE SATURDAY afternoon this fall I found myself in a place I never expected to be—up a ladder, hanging wallpaper. My teenage daughter was off to a football game, my wife was playing bridge. I had the house to myself.

About five-thirty my daughter came home—"starving." Where was Mother? What about dinner? I was beginning to wonder, too.

At about a quarter to six my wife arrived, and told us to keep our shirts on, that dinner would be ready in a jiffy. Sure enough, it was! And an excellent dinner, too—turkey, mashed potatoes, and peas. The peas came out of our freezer; the "instant" mashed potatoes out of a box; and the turkey was the kind that comes sliced, pre-cooked, in a plastic bag (drop it in boiling water for four minutes and it's ready to eat).

* Member, National Farm-City Week Committee

A Paradox

This little domestic drama illustrates a paradox in American living today. The male half of the population is up to its elbows in do-it-yourself. The female half is on a program of have-the-other-fellow-do-it-for-you. Yet this is not such a contradiction as it seems. One reason for the great increase in household appliances and ready-to-cook foods is that household help is scarce. Household help is scarce because our booming industry offers more attractive opportunities. And the more attractive opportunities offered by industry have boosted the cost of household construction and repairs to the point where most of us have to do it ourselves if it's going to be done.

We live today in a world where the grocery bill seems high because of the pre-packaging, pre-peeling, pre-cooking, pre-freezing, and other services that go into it — and yet where the average family's food cost as a percent of total income is pretty close to an all-time low. It is an economy wondrously rich, varied and complex; each part is interwoven, intertwined, interrelated with every other part. This very complexity which makes for interdependence also makes for lack of understanding.

One hundred years ago, almost 90 percent of the American people lived on the land. They raised everything they ate and most of what they wore. What they had left over they sent to the towns, cities and villages, and used the money to buy the few things that weren't produced on the farm.

Today our population figures are turned upside down. More than 90 percent of the people are in cities and towns; less than 10 percent are on the land. Yet these few are able to produce enough food, and more than enough food, for all of us.

This farm productivity didn't just happen. It is the result of a partnership between an intelligent, progressive agriculture and a dynamic industry. Backing and stimulating this partnership is the research and extension program of our land grant colleges.

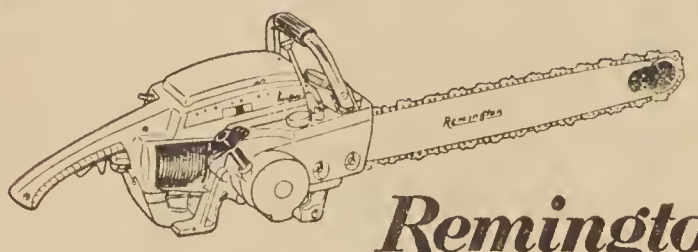
Total expenditures for research in the United States, both public and private, totalled about half a billion dollars in 1940. In 1962, they will exceed $13 billion. This tremendous expansion in research is the great driving force for change and progress. Our improved seed varieties, our weedkillers, our high-analysis fertilizers, our modern farm machines—every one of these started as a research project. Every one was developed and put on the market by industry. Every one was adopted and put to use by farmers.

Think about the progress that has been made in livestock breeding, in animal nutrition, in materials handling, in tillage practices. In virtually every instance you have the same sequence—research, implemented by industry, applied by farmers.

American farmers couldn't set their production records without their five million tractors, their million grain combines, their thousands of milking machines. But in order to produce and sell these machines, industry must have a market, a vigorous agriculture, ready, willing, able—and free—to buy and use them.

But there is another important fact that is often overlooked. In countries where half or more of the population is needed to produce food, the number of people available to build roads, schools, automobiles and TV sets is limited. High productivity on the farm is not only essential to a well-fed nation; it is essential to a well-housed, well-clothed, well-traveled, well-entertained nation.

We couldn't have our abundant American life today if we did not have a highly productive agriculture. By the same token, we couldn't have an efficient agriculture if we didn't have efficient industry. The two go together. Farm needs city; city needs farm. Neither can live without the other.



Remington

DUPONT

Best thing under a tree . .

Looking for a way to say "Merry Christmas" to the man in your life? Give him a Remington chain saw—the best thing he'll find under the tree this season, the best saw to help him cut trees and logs 15 times faster than he could with handsaw or axe. Playing Santa? Play it safe — give him the one saw with the brand name he himself knows and trusts—Remington.

See Your Authorized Remington Chain Saw Dealer Listed Below--Ask for a Free Demonstration

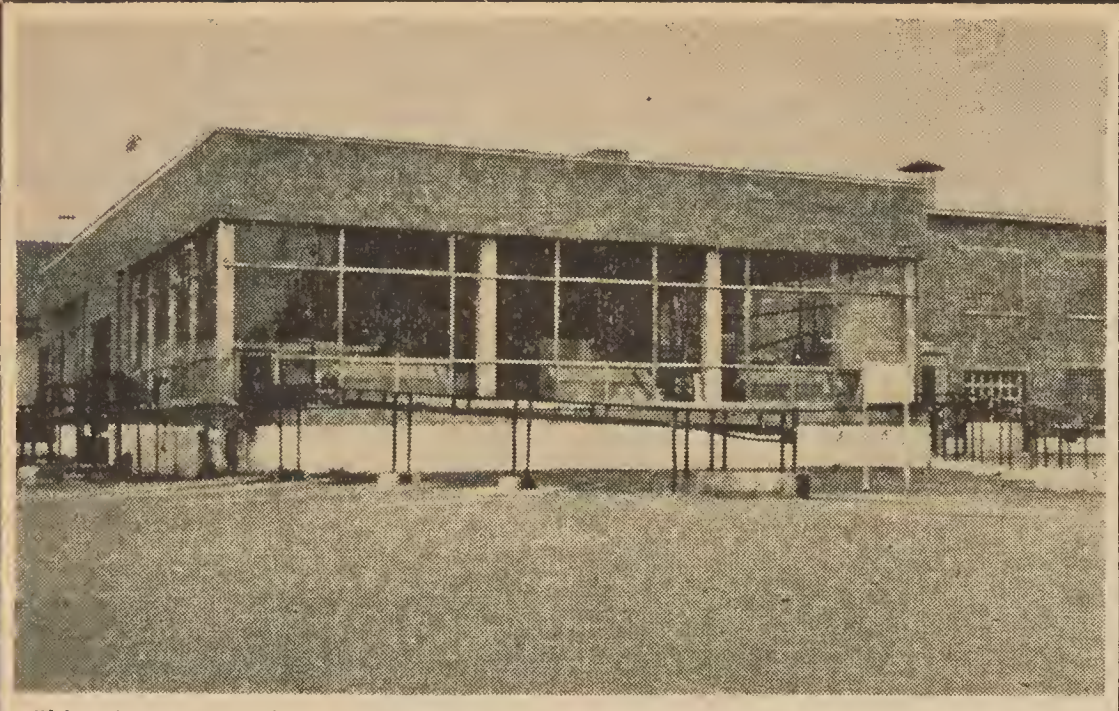
RHODE ISLAND
CENTRAL FALLS.....Motor Vehicle Clinic
EAST GREENWICH.....Rays Lawn Mower
GREENVILLE.. Daves Lawn Mower
KINGSTON.....Lawn Service Station
NORTH SCITUATE.....A. G. Turnquist Lumber
SLATERSVILLE.....P. O. LaPierre
WESTERLY.....Ralph B. Catlin & Son

NEW JERSEY
BELMAR.....Heyniger Bros.
BLAIRSTOWN.....Blairstown Electric
DENVILLE.....Master Grinding
FREEHOLD.....Barg & Mofford
HACKENSACK.....McManus Floor Machine
HASKELL.....United Rent Alls
HEWITT.....Manns Hardware
HIGHLAND PARK.....Kish Bros. Inc.
MAPLEWOOD.....Gauthier Door Check
MIDDLETOWN.....Wm. Potter & Son
NEW MARKET.....Sheldon Dix Saw Service
NORTH BRUNSWICK.....L. Adler & Son
OLD TAPPEN.....Northern Valley Mower
SUCCASUNNA.....Homecraft Rental Service
SUSSEX.....Bellows & May
TRENTON.....Olden Supply
TRENTON.....Caola Co.
UNION.....Force Machinery
WESTFIELD.....Storr Tractor Co.

CONNECTICUT
BRIDGEPORT.....Merit Hardware
CANAAN.....C. A. Lindell & Son
COLCHESTER.....Berman Bros.
COLUMBIA.....Axelrods Lawn & Garden
DANBURY.....Lathropes Sharpening Service
DERBY.....Ideal Engine & Mower Service
EASTFORD.....Warren Sales & Service
E. HARTFORD.....Bob Schafers Lawn Mower
FAIRFIELD.....Fell Equipment
GUILFORD.....Herolds Inc.
MILFORD.....Aerial Lift Repair
NAUGATUCK.....Ray Melbournes
NEW MILFORD.....New Milford Tractor
NEWTOWN.....Lovell Farm Equipment
NORWICH.....E. K. Wilcox Jr. Lumber
SIMSBURY.....Alvord Eqpt.
SOUTHINGTON Doubledays
SO. NORWALK.....Portable Power Tool
SOUTH WILLINGTON.....Nan-Da-Lou
STEPNEY.....Millard Welding
STRATFORD.....H. C. Lovells Hardware
UNCASVILLE.....Mohegan Power Eqpt.
WAREHOUSE POINT.....Capitol Tractor Co.
WATERTOWN..... Watertown Co-op
WINSTED.....J & C Farm Eqpt.

NEW YORK
ADAMS..... Ray E. Berry
ALTAMONT.....Howard L. Gage, Inc.
AMITYVILLE, L. I.....Purdy's Lawn Mower
ANDES.....Liddle Bros.
ARCADE..... M. C. & ... Drake
ASHLAND.....Irvin C. Winchell, Inc.
ATHOL.....Cameron & Cameron
ATTICA.....George Burnison
AUBURN.....Evans & Lind
BANGOR.....Debyah Farm Supply
BATAVIA.....Batavia G.L.F. Store
BATH.....Bath G.L.F. Store
BAYSHORE, L. I.....Arthur Raft
BAYSHORE, L. I. Jones Lawn Mower
BRANT.....Thomas C. Chiavetta
BROADALBIN Carpenter & Sunderland
BROOKLYN, N. Y.....Harvic Service Corp.
BUFFALO.....West Seneca Tool Rental
CASSADAGA Whit's Gun Shop
CAZENOVIA.....Waterbury & Coe
CHAMPLAIN..... Raymond Bedard
CHESTERTOWN.....Roberts Chain Saws
CLAYTON.....Pete Giltz Impl. Co.
CLINTON.....Clinton Farm Supply
CLINTON CORNERS.....F. J. Bowman & Son
COBLESKILL.....F & M Tractors, Inc.
CONESUS.....Gordon T. Alger
CORINTH..... Main Motors
CORNING.....Rice & Sons
DE RUYTER.....H. W. Cook Farm Service
DRYDEN.....Dryden Implement
EAST MEADOW, L. I.....United Rent-Alls
EDMESTON.....R. S. Hardic & Son
ELMIRA.....Keller's Saw Shop
EPHRATAH.....Duesler's Garage
ESSEX.....Lester's Service Station
FABIUS.....Fabius Hardware
FAIRVILLE.....Fairville Garage
FREEPORT, L. I.....M & M Rental Repair
FULTON.....Foster's Garden Center
GALLUPVILLE.....Robert Lawyer
GREENVILLE.....Greenville Farm Store
HALLSVILLE.....Hallsville Farm Supply
HANKINS.....Sipples Service
HARTFIELD.....Art's Lawn Mower Shop
HARPURSVILLE.....Ed Oliver
HAVERSTRAW.....Shaw Jobson
HOBART.....E. T. Van Buren & Sons
HUBBARDSVILLE.....Jacob Misch & Son
HUDSON.....A. J. Grab's Sons
INWOOD, L. I.....Long Island Lawn Mower
JAMAICA, L. I.....Deutcher & Son
JOHNSON CITY.....Goodrich Implement
KENNEDY.....Kennedy Tractor Co.
KING FERRY.....Gilling & Nedrow
KNOWLESVILLE.....Knowlesville G.L.F.
LEICESTER....A. R. Christiano Hdw. & Impl.
LIBERTY.....Woods Auto Electric
LITTLE FALLS Slabe's Garage
LIVONIA CENTER.....Day Tractor & Impl.
LONG ISLAND CITY, L. I.,....Stillwell Supply
LYNBROOK, L. I.....Dependable Tool Repair
MADISON.....Farm & Home Store
MIDDLETOWN..... Bellows & May
MILFORD Harrison Hardware
MILLERTOWN.....Scoland Farm Machinery
MINEOLA, L. I. Long Island Ind. Supply
MONROE.....Mikes Small Engine Repair
MONTICELLO.....Theimer's Garage
NEW BERLIN.....Pope Bros. Garage
NEW YORK CITY.....Contractors Trdng. Co.
NEW YORK CITY.....Westwood Paper Co.
NICHOLS J. D. Robertson & Son
NORTH LAWRENCE.....J. A. Wilber & Son
NORTHPORT, L. I.....Vernon Machine
NORWICH.....Kosowsky Hardware
OGDENSBURG.....Bailden Mfg. Co.
OLEAN.....Chiavetta Bros.
ONEIDA.....Oneida Milling Co.
ONEONTA.....East End Cattle Sales
ONTARIO.....Harry L. Smith
PALENVILLE.....Percy Schermerhorn
PATCHOGUE, L. I. Carls Lawn Mower
PEARL RIVER Pearl River Cycle
PEEKSKILL.....Caola Bros.
PENN YAN.....Hayes Exchange Store
PINE BUSH.....McDoles Service Station
PLEASANTVILLE.....C. V. Pierce Co.
PORTAGEVILLE.....Portageville Garage
PORT JERVIS Horns Coal & Lumber
PORT WASHINGTON.....Precisioneers, Inc.
POUGHKEEPSIE.....Mikes Lawn Mower
RED CREEK.....Melvin Farm Supply
RICHFIELD SPRINGS.....Beadle & Company
ROSEDALE, L. I.....A. & F. Tool Rental
ROSSIE.....Kenneth Turnbull
SCHENECTADY Vogel-Looman
SCHUYLERVILLE.....Nelson Pratt
SELKIRK.....Hillmann Bros. Equip. Co.
SHARON SPGS.....Edgar Handy Garage
SIDNEY CENTER.....Jesse Howes
SPENCER..... Simcoe's Garage
SPRING VALLEY.....Clarkstown Equipment
STATEN ISLAND..... Trimalawn Eqpt.
ST. JAMES, L. I. Molins Lawn Mower
STONE RIDGE.....George Van Bargen
SYOSSET, L. I.....McClar Inc.
SYRACUSE Syracuse Farm Supply
TARRYTOWN.....Stillwell Eqpt.
TRUMANSBURG..... Maurice Bowers
VAILS GATE.....Vails Gate Rental Mart
WALTON..... Walton Farm Supply
WALWORTH.....Duell's Garden Store
WATKINS GLEN.....Glen City Garage
WEEDSPORT.....Blumer Supply
WELLSVILLE.....Chiavetta Bros.
WESTLEYDEN.....Stanley Freeman
WEST VALLEY.....Churchill Hardware
WESTVILLE CENTER.....Wilson Farm Service
WHITEHALL.....F. H. Kingsley & Sons
WHITE PLAINS Pickard Hardware
WHITNEY POINT.....George White
WORCESTER.....Edward Johnston
YONKERS J. C. Ryan & Sons

PENNSYLVANIA
CANTON..... Rhodes & Palmer
E. SMITHFIELD Billingsley Farm Equip.
HONESDALE..... Armand Guarino
JACKSON.....Raymond Pickering
MESHOPPEN..... .Kintner Milling
PORT ALLEGHANY.....Caulkin's Lawnmower
ROME.....Donald Maslin
TOWANDA..... Dayton Milling
WELLSBORO.....English & Kemp
WESTFIELD.....Roland Mattison
WYALUSING Dimock's Store



This plant, centrally located at Fort Plain, N. Y., operated by a Cooperative Association of Milk Producers (CAMP), will manufacture dry milk spray process powder, ice cream mix, butter, evaporated and condensed milk and other products. Its eventual daily capacity—800,000 to 900,000 lbs. milk.

A BOLD FORWARD STEP

NOW the Bargaining Agency assures dairymen:

1. **stable markets during periods of excess supply**
2. **improved bargaining power**
3. **an alternative market for milk when needed**

Initiating purchase of this plant to give dairymen more control over their product is one more illustration of Agency leadership—proving that dairymen, working together, CAN get things done to improve milk marketing—the most important reason why you should belong to a Bargaining Agency cooperative.

METROPOLITAN COOPERATIVE MILK PRODUCERS BARGAINING AGENCY, INC.

527 S. Warren St., Syracuse 2, N. Y. Phone HA 2-0186

MOVE AHEAD with a Cooperative Association of Milk Producers—94 cooperatives representing 22,000 producers—united for improved milk marketing.

Northeast Dairy Study

MANY OF the universities of the Northeast (Connecticut, Cornell, Delaware, Maryland, Pennsylvania, Rutgers and Vermont) are cooperating in a study of economic factors affecting dairymen. The purpose is to determine the effect of different economic factors on milk production, to measure the response of dairy farmers to price, and to gain a better understanding of how and why milk production changes on individual farms. The study will be conducted for a period of several years, to determine how the changes occur on the 1,500 farms included in the study.

Report No. 1, pertaining to the size of herds on the farms, covered 1,483 dairymen in the study made June, 1960. It showed that 109 dairymen (7% of the group) had less than 10 cows; 74 farmers (5%) kept more than 60 cows; a relatively large number of herds had less than 30 cows. Actually, the average was 28 cows per herd, with a range from 3 to 243 cows per farm.

The second report dealt with the age, tenure, and off-farm employment of dairymen, with some information on changes in numbers of producers and size of herd. Only farmers delivering to plants under the New York-New Jersey Marketing Order were considered.

It has been reported that relatively few young men are milking cows, but the study showed the average age of operators to be 45 years. Roughly, one-third of the operators were between 20 and 39 years old, one-third between 40 and 49, and the rest over 50 years of age.

One out of eight operators held a full-time off-farm job, or was employed more than 120 days off the farm; one out of seven milk producers worked part-time off the farm.

Between June 1960 and June 1961 73 of the farmers in the study stopped production (3.5%), mostly farmers with small herds and those who were older than average. Better alternatives off the farm, low returns, age, illness and retirement were the reasons given for going out of dairying. Twenty-five percent of these particular farms were taken over by new operators and continued in dairying.

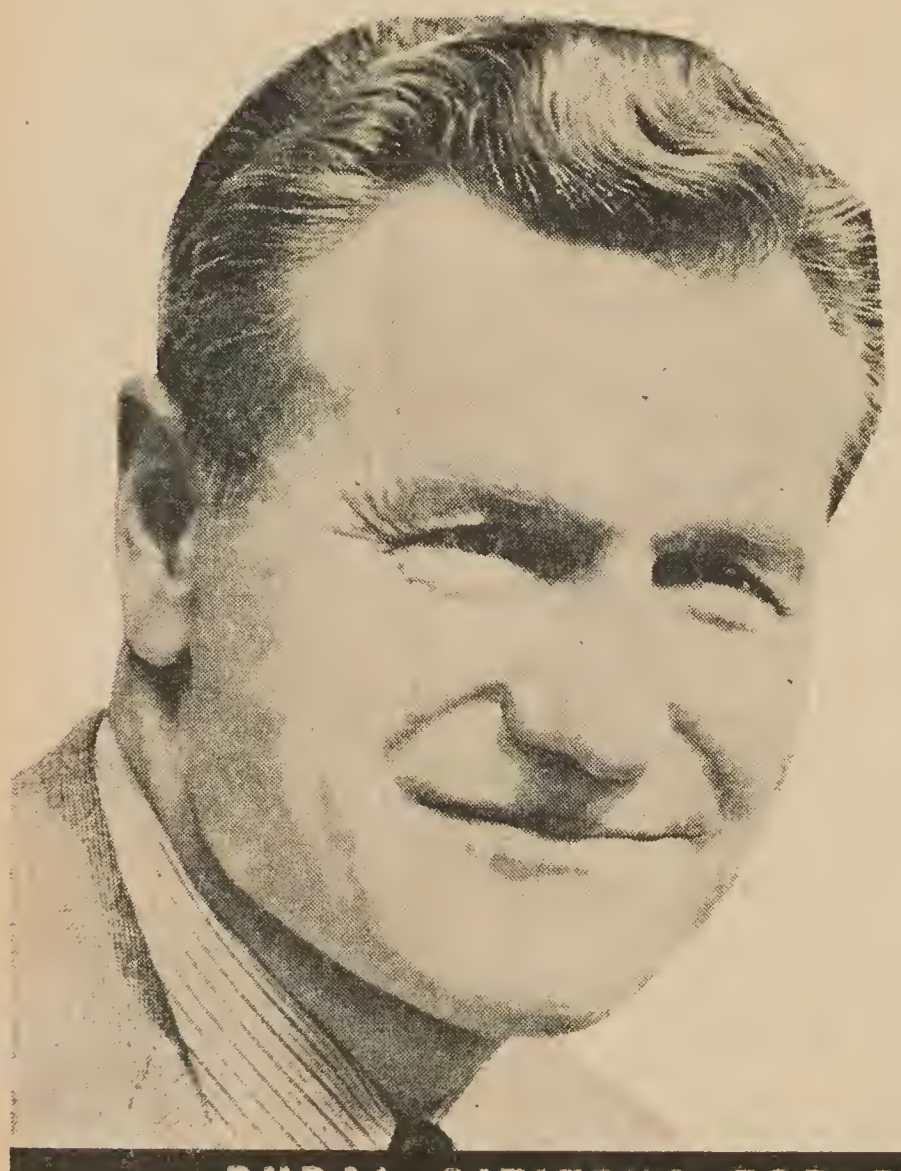
THEY'RE PRICING ON SNF IN CALIFORNIA

Beginning on April 1, 1962, a three-price plan for Class I milk went into effect in the Golden State. The new plan provides for three separate minimum prices to be used in making payments to producers—a milk fat price, a solids-not-fat price, and a fluid price. These three prices are used to determine the total value of Class I milk among producers on the basis of the total milk fats and solids-not-fat content of their Class I milk shipments.

When compared to the previous pricing system, the three-price arrangement provides an incentive to produce milk of a high solids-not-fat content. The pricing plan itself will affect a producer's total milk check only to the extent that the solids-not-fat content of his milk varies from the average in the pool, and will give the higher SNF producer a somewhat larger payment for his milk.

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it's "GO" in New York - YOU SAY WHICH WAY!

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and

THE REPUBLICAN TEAM

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MALCOLM WILSON, *Lt. Governor*

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JOHN P. LOMENZO, *Comptroller*

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YOU GO FORWARD WITH AN ADMINISTRATION WHICH

PLANS WITH VISION — PERFORMS WITH VIGOR — PAYS AS IT GOES

or

...go back to the deficit financing in mounting state debt, the fumbling and incompetent leadership, and the callous disregard of rural interests which marked the last Democratic administration.

Part of the RECORD Since 1958

- Budget Balanced
- State Debt Reduced
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- State University Capacity Doubled
- One Billion Dollar Road Program
- Expanded Research for Agriculture
- Milk Markets Protected
- Erwin Town Road Program Extended 10 Years

RURAL CITIZENS FOR ROCKEFELLER AND THE REPUBLICAN TEAM

Cochrane . . .

(Continued from Page 14)

in connection with the 55 million acre wheat allotment. It is very late for a change in the 1963 wheat program; yet the voluntary diversion program will certainly avoid a large increase in the carryover, and may possibly reduce the carryover. These operating programs adjust supplies to market demand and they protect farm income.

Numerous Criticisms

Numerous criticisms can be leveled at this supply management approach. The most common are: (1) the capitalization of income gains from farm programs into land values, and (2) the loss of efficiency in production.

It is often argued that the farm income gains resulting from the successful control of supplies would be capitalized into land values, so why seek such gains? But, when have farmers ever experienced increased returns that were not capitalized into higher land values? Increased net farm incomes, whether they arise out of wartime demand, supply control, or a natural shortage of land, will continue to be capitalized into land values. Any return over operating costs in any industry gets capitalized into the fixed assets of that industry. But this should not deter us from seeking higher farm incomes.

Even in the long run, farmers benefit from supply management because production planning is facilitated, as year-to-year commodity price variations are leveled out, and they become free of that gnawing fear that they may lose their farms, and see their other assets melt away, under wide and repeated downswings in the farm price level. In summary, with effective supply management, farmers would be operating in a stabilized market—in the kind of market that much of industry enjoys.

The economy would suffer no important loss in efficiency under supply management. Each farmer would strive to produce his quota share as cheaply as possible, and to maximize his profits. The incentive to adopt new cost-reducing technologies would remain. If farmers generally began to make excessive profits under parity prices established by Congress, the parity levels could be lowered by political action. Parity prices in this context would be set and reset in the same general way as they are now, through public pressure, political debate, and group action.

In summary, the supply management approach is not designed to cope with all the problems of agriculture. It cannot, for example, provide good incomes to farmers on small, inadequate-sized units. It cannot stop the trend to larger and larger farms. And it cannot provide managerial ability where that capacity is lacking. But it can stabilize the market—providing farmers are willing to accept the discipline of effective supply management. It can take the feast and famine characteristics out of agriculture, and guarantee good and stable income to the aggregate of farm operations. It can do this, and it is doing it now under present programs. Farm incomes generally have been improved and protected during the past two years. At the same time government stocks of wheat and feed grains are being whittled down — the first and key step in reducing the government costs of farm programs.

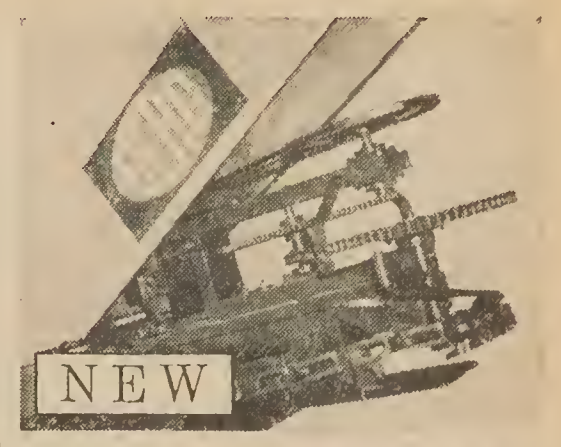
Shuman . . .

(Continued from Page 15)

agement and increased bargaining power on a sound economic basis. The Farm Bureau Trade Development Corporation reflects Farm Bureau's determination to build and expand markets both at home and abroad. If farm people will divert their attention from political panaceas and concentrate on making those organizations fully effective, I am sure that far better results will be attained than from continued preoccupation with legislative attempts to improve farm income.

Government is at one and the same time necessary to preserve freedom and also the greatest enemy of liberty. A most important freedom is the right to spend one's income—big government destroys that freedom by taxing away earnings. Economic gains for farmers which are earned by supplying free market needs do not reduce the living standards of others—but when government transfers income to agriculture, increases can be made only by taking money from other citizens.

If our goal is to release the greatest potentials of all individuals, then this goal can only be reached with a maximum of freedom. In a planned, government-directed economy, progress is limited by the initiative and imagination of the planners or controllers. In a free enterprise system, all individuals are free to progress and to initiate new ideas as rapidly as possible. Federal supply management is the high road to a government-directed agricultural economy, and is a frontal attack on the free competitive enterprise system.



MAN-SAVER

New Berg Pacesetter cleans your barn while you do other chores. This low-cost cleaner gives you roller-chain drive, one-piece, hook-and-eye gutter chain links—all features of the famous Berg Choremaster in a strength to handle 200 feet of chain. Automatic chain tightener is optional.

Send for FREE Plan Help!

BERG EQUIPMENT CORP.
Marshfield, Wisconsin (AA-11)

Send me information about Berg Stalls and
Stanchions ☐ Cow-Saver Tie Stall ☐
Barn Cleaners ☐ Simplex Water Bowls ☐
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I'm building a new barn ☐ Remodeling ☐
Name_____
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Town_____ State_____

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Jackass Cigaret Dispenser



Nod head, up goes tail, out comes cigaret! Great laugh producer & practical cigaret dispenser. Surprise & amuse friends with funny, useful gift. Holds 10 cigarets. Attractively made of wood. Hill Billy Mose sitting on naughty jackass with case of corn liquor. Moveable head and tail. Colorfully finished. Great for den, office, etc. Gift box. 7½-in. high. $1.00
Get several. EACH POSTPAID.....
3 for $2.35; 6 for $4.35; 12 for $8.35;
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Johnson Smith & Co., Dept. 213, Detroit 7, Michigan



Protect
your milk
with Mojonnier's
Seal of Quality

Your milk is money. Mojonnier **seals** it under vacuum. Exclusive latching covers of the Mojonnier bulk cooler **lock** tight, seal out dust, odors, insects, and warm air. Cold is sealed in. Power costs are lower. Milk is higher in quality, with fresher flavor.

Milk can't be made cleaner than it comes from the cow. But the sealed Mojonnier keeps milk fully protected for top price.

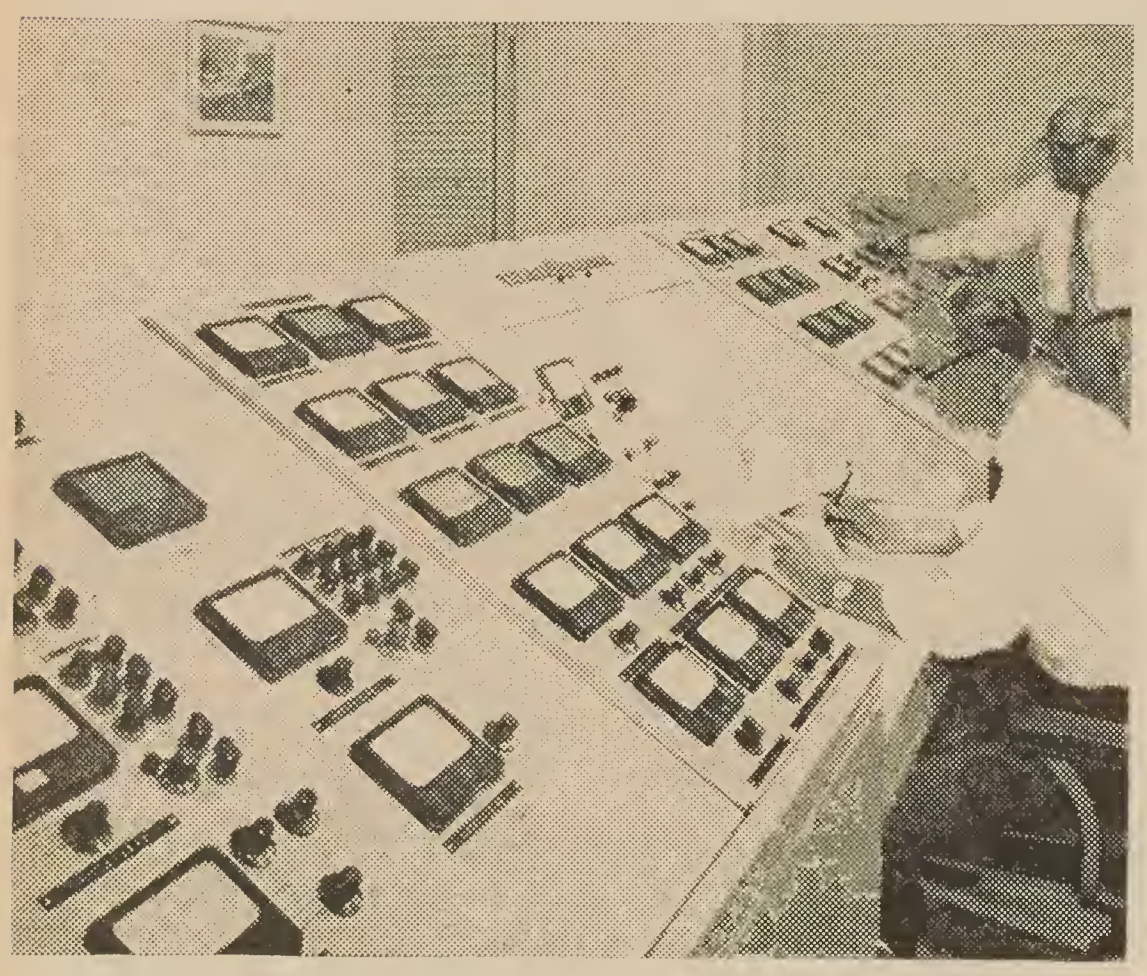
100% Stainless Steel inside and out. Rigid, cylindrical shape — coupled with SPRAY-O-MATIC cleaning and smooth Micro Polished surfaces — assures fast draining — a lifetime of dependable, convenient service!

For pour-in, dumping station or pipeline, it's the latest in milk handling. Install a sealed-system Mojonnier. Save cost of a releaser. Be ready for a complete pipeline any time. Earn higher milk checks now. Write for literature describing today's most-wanted features of vacuum milk handling. **Mojonnier Bros. Co., 4601 West Ohio Street, Chicago 44, Illinois.**

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QUALITY ENGINEERED FOR ECONOMY

SEALED SYSTEM
OF MILK HANDLING

How do you take an inventory of electricity ? ? ?



These Niagara Mohawk engineers do it every day. With this Electronic Power Network Analyzer, they select and utilize, from hour to hour, the generating sources that will provide the most efficient and economical power supply to our 1,374,000 electric and gas customers. This amazing piece of equipment serves as an "electronic traffic manager"—routing electricity from the points of generation to the area where it is used. ■ Other power companies in New York, New England, Pennsylvania and Canada use Niagara Mohawk as a "clearing house" for the interchange of power between companies. The computer is an invaluable aid here, too. ■ Installation of the Electronic Power Network Analyzer is one more way Niagara Mohawk is alertly keeping an Electric Eye To The Future.

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INVESTOR OWNED • TAXPAYING

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

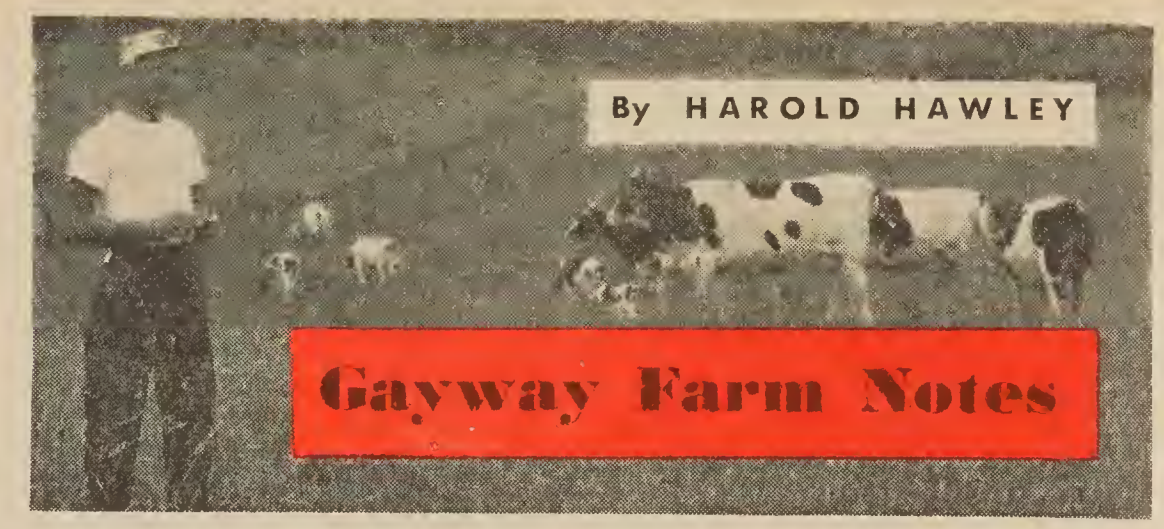
This substance is now available in *suppository* or *ointment form* under the name *Preparation H®*. At all drug counters.

NO HORNS!

One application of Dr. Naylor's Dehorning Paste on horn button of calves, kids, lambs—and *no horns will grow*. No cutting, no bleeding. 4oz. jar—$1.00 at your dealer's, or mailed postpaid.
H. W. NAYLOR CO.
Morris 12, N.Y.



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Over 2,000,000 Sunflower Dish Cloths
Were sold in 1961 by members of Sunday Schools, Ladies Aids, Young People's Groups, etc. They enable you to earn money for your treasury, and make friends for your organization. Sample FREE to Official.
SANGAMON MILLS, INC.
Established 1915 Cohoes, N. Y., 23



PROGRESS—1962 STYLE

POSSIBLY the hottest new thing which has hit dairymen is not a piece of equipment but a piece of research—this business of feeding more grain to our cows. Frankly, we thought we were doing a pretty good job of feeding, not only with our roughage program, but grain enough to give reasonable production at a profit.

Along come feed companies with their "lead feeding" program, and now it is "challenge feeding"—all the grain they will clean up during the early months of the lactation. Much as it hurts to admit it, we just weren't getting the job done in view of the potential some of our cows seem to have. Since pushing up grain feeding in line with the new recommendations, our gals have been making like champs.

I suspect that, properly conceived, there is always a two-way exchange of ideas between businessmen in town and in the country. Certainly this new feeding program really got off the ground only after a lot of good farmers and good cows had cooperated on an experimental basis to confirm the findings of the research people. The results were convincing enough to justify area-wide recommendations.

We've seen this sort of thing happen with machinery — on a more limited scale. A new or experimental machine under actual farm conditions soon either proves itself, or else the "bugs" come to light. Ideally, enough testing should be done before a new machine is sold so that the farmers are not running the experiments for the manufacturers. However, it sometimes happens that even after considerable testing at the factory and in the field certain weaknesses of construction or design show up in day after day farm use.

It's to the credit of both manufacturers and dealers that there have been many instances of machines being called in for changes or beefing-up at no expense to the purchaser. In some situations the defects have been pretty obvious to all, and the company ordered changes. In at least a couple of cases, users made suggestions for design changes which the company was quick to accept. This led to progress in a hurry —I suppose the stimulus of competition entered into this, too.

We mentioned seeing a tandem hay mowing set-up out in the wild hay region of northern Nebraska. Here is an example of cooperation. As near as I can find out a farmer pioneered on this in his own shop. Then a dealer saw possibilities—and passed the word on to the company, which soon was able to supply these machines to others.

Apparently this joint effort has provided a good useful machine for their conditions, but we could tell it was unsuited to our kind of heavy-lodged hay growing on a slope. We will have to look to other ways of speeding up our mowing—possibly 10' cutterbars or swather conditioners.

Along about silo-filling time each fall, we always seem to get to speculating about how much an aluminum blower pipe would cost and how much it would weigh. After filling five silos, and refilling a couple, I develop a yearning for a lighter pipe we could put up and take down more quickly and easily. It seems reasonable that there must be some way to coat aluminum pipe so that it would be resistant to the acids in the silage. In any event, I'm hereby suggesting to all manufacturers that here is a need to be filled!

END ROWS NEEDED?

It looks a bit odd when riding by to see strips of oats or soybeans down through and around the fields of corn, but this is very common practice throughout much of the Corn Belt. It has no appeal to us as far as husking corn is concerned, as our mounted picker opens up the fields with no waste or hand labor. However, we are going to give it a whirl for our silo corn next year. The self-propelled combine would clean up the oats with no waste and we could save a lot of hand work opening up the corn fields. Yes, we still do it that way. We've tried driving over it and then trying to pick up as much as possible on the way back, but too little gets picked up to suit.

Much as we dislike cutting corn by hand and feeding it into a chopper, it still seems like pretty good pay to do this rather than to waste several tons of silage. These strips of oats would solve this problem and the idea seems to be worth a try.

A NEW CROP?

They tell us that there used to be a modest acreage of sugar beets grown here in Cayuga County fifty to sixty years ago. For various reasons the crop went the way of tobacco, teasels, the farm flock of poultry, and the pen of three or four porkers for home use.

Now efforts are being made to reestablish the sugar beet industry. This would involve a refinery needing the tonnage from 20,000 to 30,000 acres. Most changes take place gradually as profits (real or expected) and alternative opportunities cause individual farmers to modify their acreages and programs. This proposal involves sudden change, since the justification for an area allotment hinges in part, at least, on the assurance of enough acreage to utilize plant capacity.

I trust no one will misunderstand and conclude that I am opposed to change or to a new industry or crop. However, it just may be worth while to contrast the approach to this new proposal with the way some success-

(Continued on Opposite Page)

2-way tabs

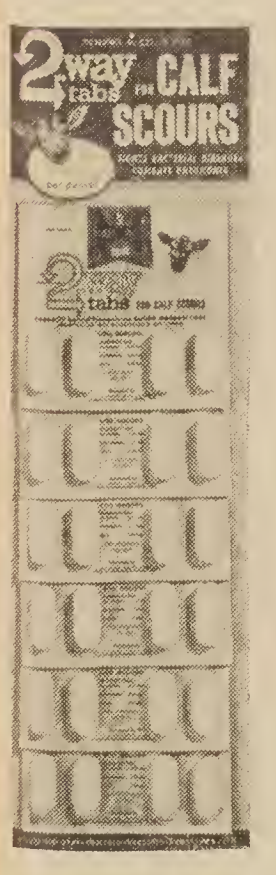
double trouble for disease

STREPTOMYCIN

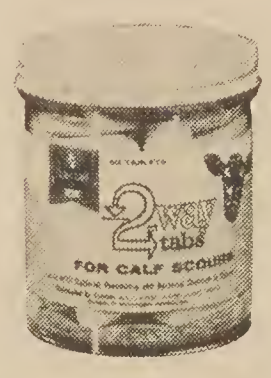
SULFATHIAZOLE

double action against pneumonia and scours

Each 2-Way Tab is power packed with two powerful drugs . . . streptomycin and sulfathiazole. The combination of these drugs in high levels fights infection in the intestinal tract and the blood stream . . . and fights a wide variety of disease organisms. It's no wonder that 2-Way Tabs are twin friends of the calf raiser, they help him fight pneumonia and scours at the same time.



Look for this Tab Card Display at your Hess & Clark animal health dealer. Four Tabs treat one calf . . . the low cost way to fight scours and pneumonia.



For economy . . . buy the 50 Tab supply in the new plastic jar.

HESS & CLARK
ASHLAND, OHIO
Division of Richardson-Merrell Inc. T-3-2

Gayway Farm Notes

(Continued from Opposite Page)

ful changes have come about in the past.

First: The introduction of a new factory or refinery (even though a seasonal thing) has wide appeal as a creator of jobs. Hence, wide support from many groups.

Second: Because this area has been declared a depressed one "with chronic unemployment" etc., etc., certain federal and state money (low interest loans) are available for approved ventures.

Third: Some of the most vigorous support and leadership for this move has come from non-farm people.

Fourth: It seems to me there has been a dearth of factual information presented to farmers as to costs, yields (gross and sugar content), actual labor requirements both machine and hand, and the cost of specialized equipment. These facts can be secured from other acres growing sugar beets, as well as copies of the contracts.

Our trip last month gave us a chance to talk with growers who enlightened us on practices some refineries have tried, and the struggles farmers have had to get the kind of deal fair to everyone. These involve who supplies seed and at what price; practices involving taring one load each morning as against weighing and taring every load; pressure to dig and market beets too early so as to spread plant labor peak, at the expense of higher percentage sugar content.

In most situations in the past where farmers have individually or collectively desired to make changes, they have eased into something new gradually. If sound and profitable, the crop caught on and a change was accomplished based on the individual best judgment of many farmers. To date, there has been too little basis for anyone to make a firm commitment, much less guarantee 20,000 to 30,000 acres.

Yet the Secretary of Agriculture is being asked to give a quota to this area and, if he does, government funds will be forthcoming to start a plant, contracts will be drawn up, growers will give it a try. Then and only then will it be known whether the refinery is an economic asset to the area or a glorified monument to too much hurry, too much promotion by non-farm people with an axe to grind, and too little opportunity for the sound, substantial thought and judgment that a group of farmers could give the proposal—given time and facts.

I sincerely hope that, despite the approach, the results will be good. No one wants to see the area prosper more than I. But old-fashioned conservative, sound, individual decisions by the men who must grow the crops and who must ultimately get at least a modest profit if the industry is to stay, still seems the best way to arrive at a program.

There are just too many profitable alternatives for farmers in Cayuga County to make much of a future for a new crop unless it, too, is a good one for the individual farmer. Let's hope sugar beets are!

Possibly if the refinery was to be entirely financed with private capital by an established sugar company, we would see more real hard cooperative thinking by both industry and agriculture. This is the kind of thing which has led to mutually advantageous arrangements and progress in so many other situations.

ENOUGH TALK!

STIMULATE FLUID MILK SALES WITH YOUR OWN

"Do-It-Yourself" BILLBOARD

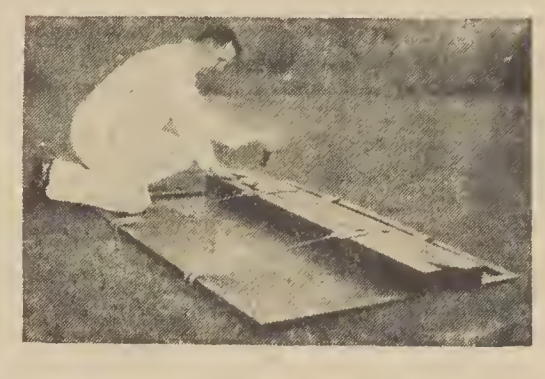
A great shortcoming in milk promotion has been the tendency to talk about it and not really *do* too much. Another has been the failure to fully develop the potential role of producers themselves.

Eastern Milk Producers has beaten both problems by providing, at cost, a progressive, dairy farmer "Do-it-yourself" billboard program . . . the strongest, direct milk promotion step ever undertaken by any cooperative organization. This program is designed to benefit all dairy farmers—you don't have to be an Eastern member to take advantage of it.

Here's How IT Works:

1 An Eastern Billboard . . . as You Receive It!

Kit includes everything from hardware to treated posts, all cut, beveled and drilled to make a 4' by 6' prepainted sign.



2 Installation is Easy . . . One Man Can Do It!

You just dig 4 holes, hammer 12 nails and erect the billboard on your own land.



3 Adhesive-backed Posters . . . Simple To Put Up!

Three sheets of pressure-sensitive paper make up complete poster. Just peel off backing and stick in place. No paste, no mess. You receive a new, original Eastern three-color fluid milk advertising poster three to four times yearly. Just peel off old poster and stick up new.



Now's Your Chance to do something yourself for better fluid milk promotion.

Enough Talk! If you're interested in action, mail coupon below.

Eastern MILK PRODUCERS Cooperative Association
Kinne Road, Syracuse 14, N. Y.

Send me full details on producer "Do-it-yourself" milk promotion billboard.

Name_____

Address_____

(If Eastern member, give name of Local)



Make Sure it's WATKINS, Buster!

Demanding cows ask for WATKINS Farm and Feed Salt. That makes your job easier, too, because WATKINS Farm and Feed Salt is packed in convenient 25, 50 and 100 pound bags, ready for feed mixing. So, when your cows ask for WATKINS ... it's in the bag, just reach for it! You can get it plain, iodized or trace mineralized. Just ask your feed dealer.

Famous WATKINS Salt is also ready in blocks or 4 lb. bricks ... plain, iodized, sulphurized or trace mineralized.

And don't forget, people can get WATKINS Table Salt for the home, too. For more than 60 years, WATKINS Salt has been in the home. Ask your grocer for WATKINS table salt in the regular 26 oz. round package. Better still, try the new kitchen-handy 4-Way Canister ... both wrapped in the famous red label. Ask for WATKINS Salt.

WATKINS SALT IN THE AMERICAN HOME FOR 60 YEARS

Watkins Glen, New York

County Agent Comments

(Continued from Page 10)

placing this next one in second place because it certainly would be of great benefit to all farmers. I am thinking of a 'non-poisonous poison' which would control all of our insect pests and at the same time not be harmful to warm blooded animals, including man.

"If we could gain control of insects without using a material which subjects our food products to suspicion on the part of public health officials, consumers, and others who are interested in this subject, it would be a great boon to our farmers. A single material which would control all insects would, of course, be a great help.

"I think my third request would be for an herbicide that would control all obnoxious weeds and leave no objectionable residues on the crop. It goes without saying, of course, that it would not harm the crop on which it was applied.

Dairy Area

From Oneida County, which most of the time holds the top spot among counties in New York State in terms of total milk production, comes these comments from Eric Kresse:

"It seems to me that in this highly mechanical age in which we live there is one area of dairy management process which still needs attention and needs some kind of mechanical contrivance that would lessen the backbreaking work. I am thinking of the grain and silage feeding process.

"The piece of equipment I could visualize would be a feed or silage cart, motorized, operated by battery power and which would be a miniature self-unloading wagon inside. The amount of silage or grain left at an individual cow's stall could be easily metered out in pounds or bushels in the case of grain and silage respectively.

"With another swish of the magic wand, I could visualize a recording device, either mechanical or electronic, which could be attached or built in to the milking machine unit that is attached to the cow or placed on the floor next to the cow which would register the pounds of milk that the cow produced at that particular milking. This type of device would have to be small, compact, and accurate and might even contain the feature that when the milker head was removed from the pail it would shoot back to zero and be ready to count the pounds again as the milkers are placed on the next cow.

"A third thing that comes to mind that is being done in some other states is that of providing a substitute farm operator to allow farmers to get away on vacations and weekends like the rest of the American population. Farmers continually indicate to us that they cannot get anyone on whom they can depend to take over for a couple of days so that they may spend some time on a trip with their families or attend meetings connected with their business."

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NEWS and VIEWS from

New York and Pennsylvania

Winners — Pictured above are Empire State recipients of purebred dairy calves presented at the 1962 New York State Exposition by the State breed associations, cooperating with the Purebred Dairy Cattle Association. Left to right: Richard Cole, Cuba, with Holstein calf; Graeme Stewart, Hammond, Jersey; Robert Carlstrom, Sinclairville, Guernsey; Donald Cox, Dalton, Brown Swiss; David South, Ballston Spa, Ayrshire; and Richard Patterson, Jr., Greig, Milking Shorthorn.

New Market — The Washington Street (New York City) market, where 165,500 carlots of fresh fruits and vegetables are received each year, is cluttered, crowded, and often impassable. Produce comes from almost every state and from 35 foreign countries to Washington Street, for which consumers pay about $500 million a year, about $10 million of which, it is felt, could be saved by a more efficient marketing system.

Accordingly, New York City's Board of Estimate has approved plans for the construction of a new wholesale produce market in the Hunts Point area of the Bronx. Meetings are being held to give all major operators in the market an opportunity to get all the facts, and growers who deliver to Washington Street are intensely interested.

Reduced Rates —on hay sent by rail will be available all winter to Pennsylvania farmers who were unable to bale normal supplies during the drought. The Eastern railroads have extended the 25 percent reduction through March 31, 1962.

Champions — Pennsylvania State University showed the grand champion and reserve grand champion steer at the Ohio State Fair recently. The University also had nine champions among beef breeding stock.

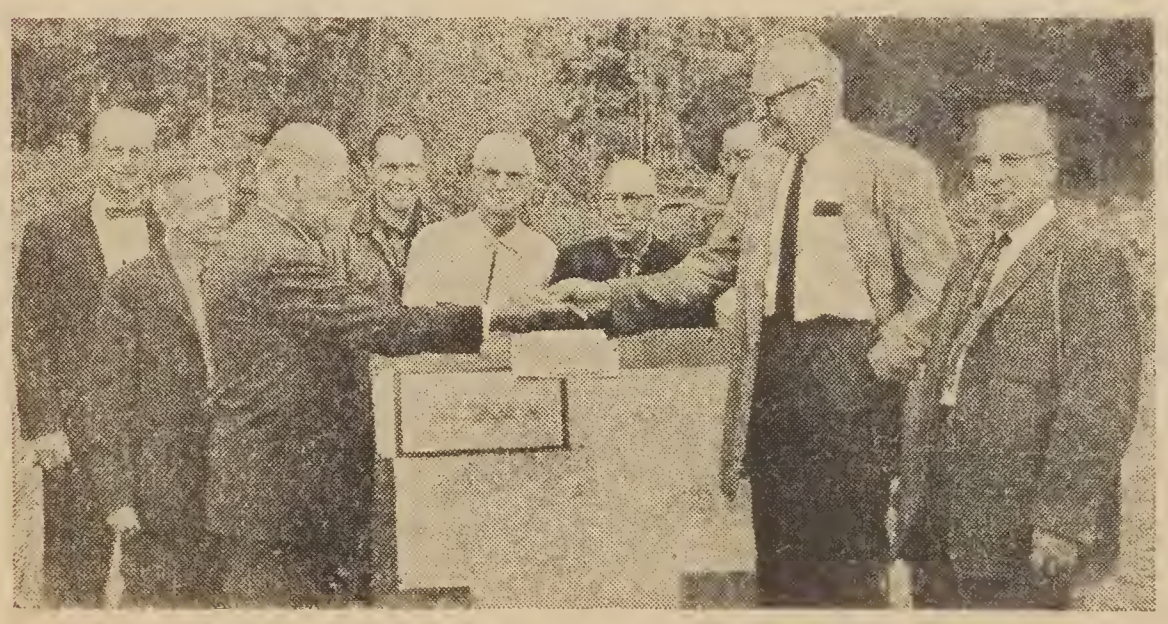
New Plant — The Metropolitan Cooperative Milk Producers Bargaining Agency of Syracuse has announced that they will take over the former Adler plant at Fort Plain, N. Y., to form the nucleus of a million dollar dairy products manufacturing facility. It is expected to utilize more than $9 million worth of area-produced milk annually, and the plant will be capable of processing 800,000 pounds of milk daily.

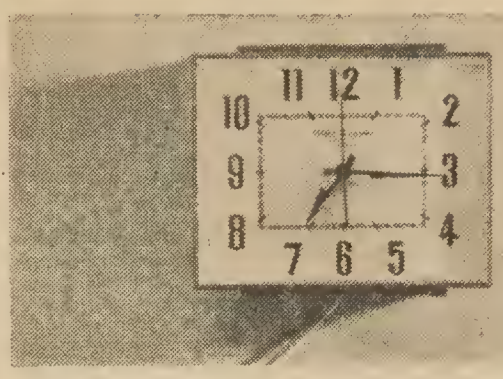
Merger — The Producers Co-Operative Commission Association of Buffalo has agreed to pool facilities, finances and personnel with the Empire Livestock Marketing Cooperative; object, the strengthening of livestock marketing in western New York. All marketing facilities of the two groups will be continued.

NEPPCO — Carole Ann Kleinwachter of Preston, Maryland, was selected as "Poultry Princess of the Northeast" at the recent NEPPCO meeting in Harrisburg, Pennsylvania. A 4-H team from Maine topped the egg grading competition, the New Jersey team was second, with Delaware a close third. Rhode Island came away with top honors for FFA egg and poultry judging; New York ranked second; Connecticut third. Named as president was Oscar Turner, Livermore, Maine; vice president, Harry Metz, Belleville, Pennsylvania; treasurer, James C. Weisel, Rosemont, New Jersey; secretary, Henry Stevens, Gossville, N. H.

Passing the Bucks — Pictured below is the group present at the "check passing ceremony" in connection with construction of a central building at Camp Arnot, a conservation leader training center near Ithaca, New York. The gift of $2,000 was given by the New York State 4-H Foundation, the presentation was made by Lyman Hammond, chairman of the trustees of the Foundation (left) and received by Dr. A. A. Johnson, Director of Extension at Cornell University.

In recent years, 4-H clubs and leaders, sportsmen's organizations, service groups, and many individuals have contributed funds or materials to transform an abandoned CCC camp into a facility adequate for 120 campers and staff. This gift will start efforts to complete a central building for dining and meeting.





Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P. M., over these stations.

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Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc	Schenectady	WGY	810 kc.
Glens Falls	WSET	1410 kc	Scranton, Pa.	WEJL	630 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.			
Olean	WHDL	1450 kc.			

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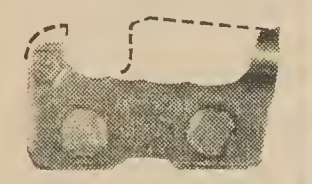
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OREGON® Saw Chain

Case History No. 2



OREGON Micro-Bit Chain cutter after case history chain cut over 600 cords. Chain remained efficient even though cutting plate was almost completely worn and filed away.

FULL DETAILS ON REQUEST

The national average cut of cordwood for all saw chains is 200 cords.

This OREGON Micro-Bit chain, operating in sub-zero temperatures, cut over 600 cords of oak and hemlock . . . a good three times the national average.

We *don't claim* that every OREGON chain will cut three times above average. We *do know* that this one did . . . that far-better-than-average performance is typical for properly used and maintained OREGON chain.

Put an OREGON chain on your saw. You'll cut more timber, make more money with it.

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Above, Floyd Barker, Soil Conservation technician, checks that hydrant pipe is placed deep enough in the pond to get maximum draw, and far enough into the pond to avoid silting. Below he checks the height of the standpipe.

Fire Protection With

Dry Hydrants

By GORDON S. SMITH*

GRANITE Staters have come up with something new in rural fire protection. It's an improved roadside dry hydrant that takes advantage of ponds, streams, and other farm water sources. Near Rochester, New Hampshire, where the scheme originated, they're fitting them with standard fire pump couplings for instant use.

With design improvements made by the U. S. Soil Conservation Service technicians, the device has been made available to Strafford Soil Conservation District cooperators in inexpensive "kit" form.

One of the first dry hydrants was installed at the Robert Whitehouse farm at Rollingsford. Whitehouse had contractors backhoe a 6 foot ditch from his new pond to the roadside. Using six inch fiber pipe, he laid the pipe in the ditch on a slight downgrade toward the pond. Gravel was added around the pipe to prevent heaving. Joints were pounded tight with a sledgehammer and sealed with roofing cement.

Whitehouse extended the fiber pipe about 10 feet into the pond and elevated the intake far enough above the bottom to prevent silt clogging, yet deep enough for maximum draw and to prevent ice blockage. In ponds already filled with water, this operation involves a bit of amateur skindiving. A guard was fitted over the intake to keep flotsam from blocking the pipe.

Moving back to the roadside end of the ditch, Whitehouse installed the ready-assembled hydrant, consisting of a four foot long iron standpipe, four inches in diameter, with an L-bend at the top. A steamer nozzle threaded to fit standard fire hoses was snug at the end, and at the bottom an adapter fitted to the standpipe accepted the six inch fiber pipe. Joggled into position, the assembly is anchored with a cube of concrete 16 inches square by 4 feet deep.



Before refilling the ditch with more gravel and dirt, Soil Conservation Serviceman Floyd Barker inspected it, especially to insure proper grade. "Running pipes downhill from the water source is, of course, asking for trouble," he warned. "This makes it a **wet** hydrant, and the water sitting in the pipes above the frost line freezes solid. Installed correctly, dry hydrant piping will feed water almost any reasonable distance uphill, although extra long stretches will suffer friction and gravity losses."

Average dry hydrant jobs cost about $200, including the ditch work, material and labor.

Painted a bright, fire engine red, the hydrant will protect the Whitehouse poultry barn and home, plus five other nearby houses and barns. It will deliver 500 gallons a minute for more than 12 hours.

So far, dry hydrants being built in Strafford County have been paid for by individuals. Maurice Hatfield, equipment contractor from nearby Dover, comments: "There's a lot of interest in this idea. Many people ask me about it when they see our men installing one. Some say it would be a good idea for a neighborhood group to share-cost a hydrant, or even have the town pay part of the costs."

*Soil Conservation Service, Upper Darby, Pa.

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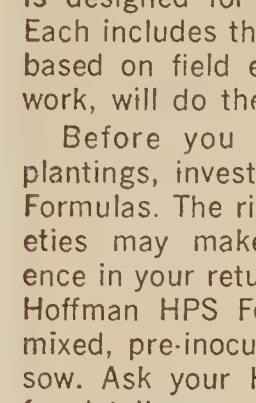
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Farm-City Week

How Genesee County Puts on A Real Show

By HUGH COSLINE

THE MOST effective Farm-City Week observance with which I am familiar is the one in Genesee County, New York.

Six years ago the president of the Batavia Kiwanis Club, Joe Maucuso, invited the heads of organizations, both farm and urban, to meet to discuss plans to observe Farm-City Week. As a result, the members of the Serviee Clubs in Batavia invited their farmer friends to the weekly luneheon, and a parade was organized.

From that relatively small beginning there is now a full week of Farm-City aetivities eentered in the eity of Batavia.

Full Week

The responsibility for naming an over-all eommittee has been shifted to the Chamber of Commeree. The Chamber also prints an attractive program.

This year the aetivities began on Saturday, September 15, with an art show put on by the Batavia Society of Artists, followed by a parade and a dance (in a parking lot) sponsored by the Lions Club.

Sunday was "Church Day," with a program arranged by the ministers of the eounty. In the afternoon there were three one-hour tours to points of interest in the eounty.

Monday was Lions Club Day, with members honoring farm guests. Tuesday was Rotary and Sertoma Day, with a tea for farm women at the YWCA sponsored by the women of Batavia.

The Grange of the County took over the aetivities on Wednesday, with a Farm-City banquet at the County Fair Grounds.

On Thursday, the County Extension Service and the Merehants' Council provided buses to transport city sehool ehildren to a number of farms, and at the same time the Chamber of Commeree sponsored and arranged a number of tours of local industries, primarily to give farmers the opportunity to beeome better aequainted with them. At noon members of the Batavia Kiwanis Club invited farm guests to the weekly luncheon. I attended the 1961 Kiwanis luneheon and the annual Farm-City banquet as a guest. This year I was asked to be the speaker at the Kiwanis luncheon.

I diseussed with the group (about evenly divided between eity and farm) some of the problems of modern communieation of information. I emphasized the need to analyze what we hear and read, and to reaeh our own eonelusions as to the worth of all ideas presented.

I asked Joe Maueuso, who was Master of Ceremonies at the Kiwanis luneheon, how so ambitious a program was maintained year after year. From what he told me I gather that it is no problem. The Chamber of Commeree appoints a eommittee, and eaeh group involved both in the county and in the eity goes to work. It seems like an application of the old adage that "many hands make light work."

Anyway, the people in Genesee County like the idea. They have made it work in a way that might well be copied by any county where the annual Farm-City Week is faltering.

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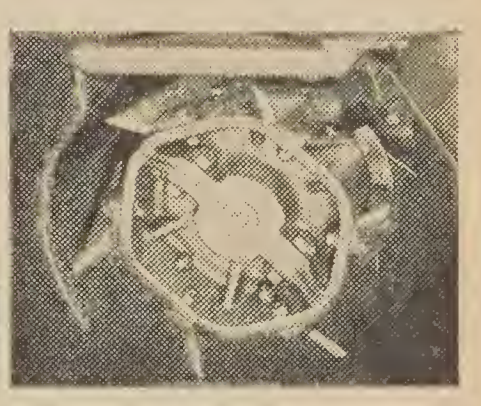
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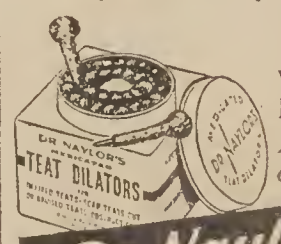
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Meet the Taylor family—left to right, they are: Donald, Philip, Clayton, David, Annie, Robert and his wife Anna.

CAREERS UNLIMITED

By HUGH COSLINE

EVERY GOOD farmer, I believe, hopes to have a son to keep the home farm in the family, maintaining the fertility of the soil, keeping the buildings repaired—in fact, improving the farm business every year.

What does a good farmer do when he has four sons with a family business not large enough for all of them? Perhaps the question should be, what do three of the sons choose as professions? It's a problem, one which was solved—and solved well—by Mr. and Mrs. Clayton Taylor of Lawtons, Erie County, New York, and by their four sons.

Sometimes farm boys who don't intend to go back to the farm shy away from state colleges of agriculture. But three of the Taylor boys—Philip, Robert and Donald—graduated from the College of Agriculture at Cornell, while David graduated from Cornell's State College of Veterinary Medicine. Mr. Clayton comments:

"The fact of no tuition in the agricultural and veterinary colleges was a great help to us. I'd also like to mention that I think anyone who attends the College of Agriculture at Cornell has a great opportunity because in addition to an excellent training in agriculture he is allowed to take many courses in the College of Arts and Sciences. All of my boys took advantage of these extra courses, and they also realized the number of opportunities in fields related to agriculture—although their mother and I didn't expect that two of them would be on the staffs of agricultural colleges.

"Phil is with us on the farm," continued Clayton, "and we are happy to have him here. He graduated from Cornell in 1955, saw some Navy service, and had two years working with the G.L.F. before coming back to the farm. At that time I had a herd of Aberdeen-Angus cows, six acres of grapes, and grew certified seed oats. Phil saw the need for a bigger business if he was to stay, so he increased the acreage of grapes to 12½, keeps 35 brood sows, and sells feeder pigs. I think he chose well to add the breeder pigs enterprise. We now have 90 head of Angus, and sell most of those we raise as breeding stock."

Robert, two years younger than Phil, graduated from the Cornell Ag College in 1956. He recently joined the staff of the Purdue Agricultural Economics Department, has his Master's degree, and is working on his Ph.D. Incidentally, Bob is the only one of the boys married, and he and Mrs. Taylor have three children.

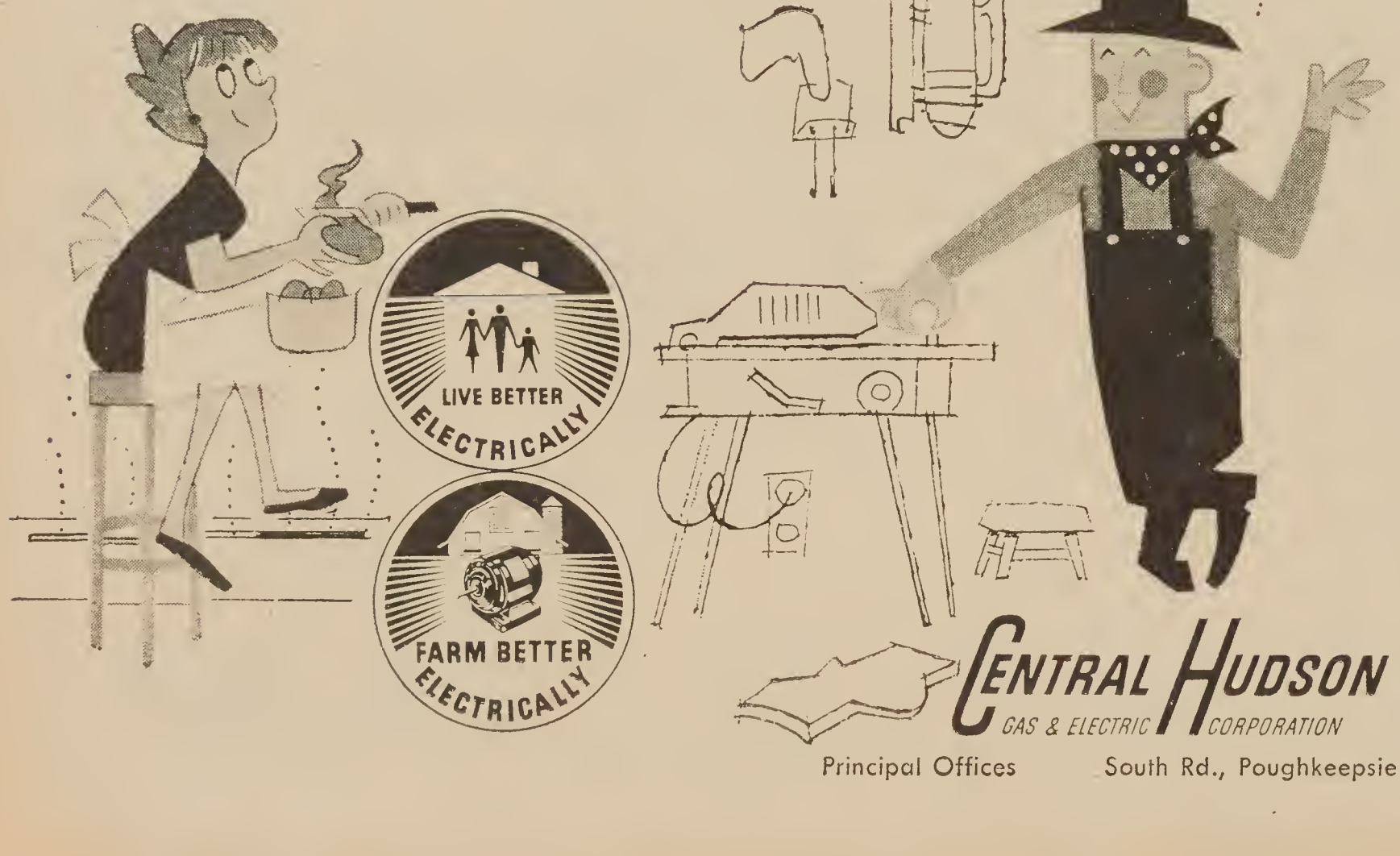
Apparently Mr. and Mrs. Taylor got a bit impatient at the slowness of nature, for the next two boys, Donald and David, are twins. Donald graduated from the Cornell Agricultural College in 1959, spent two years in the Army. While there he and a boy from the University of Minnesota were selected by the State Department in Washington to go to India as goodwill ambassadors. Their principal job was to visit schools and colleges, telling about agriculture in the States, the 4-H clubs, and the work in the colleges.

Donald is now attending the University of Minnesota, studying in the agricultural economics department.

(Continued on Opposite Page)

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Readers Tell Us!



SUPPLY MANAGEMENT

During the past few days I have been giving the subjeet of supply management considerable thought.

First of all, the mention of management always brings up the question of who is going to do the managing. The Federal government is by far the largest and most powerful management foree that farmers must contend with. Almost any undertaking on the farm today has first to hurdle the government rulc or regulation affecting it before actually getting started. This affeets deeisions on dairying, wheat, feed grains, beans—you name it and you will find a law regulating it in some form.

The attempt at supply management by the government started almost thirty years ago, in the early months of Franklin Roosevelt's administration. The killing of little pigs for government payments was little different than the payments to farmers for not raising feed grains. Most of the theory behind government supply management is sound, but such a wide diversity of elimate. soil eonditions, topography, and seetional eustoms exist, that any attempt at fair administration is impossible.

There is another type of supply management in existenee that has been in the limelight these past few weeks, namely The National Farmer Organization. They are attempting to eontrol the market by having farmers withhold produce and livestoek from the market. This idea is also doomed to failure, because livestoek cannot be put on a shelf and stored until a good market exists. When animals are ready for slaughter, they must be sold or the farmer starts to lost money. Another reason for its failure, and probably the most important one, is that this idea takes away the individual freedom from the farmer, and I am sure most farmers will not relinquish this God-given right.

It is interesting to note that supply management, when left to the farmers, ean be made to work very sueeessfully. The beef eattle and hog segments of our farm eeonomy have avoided entanglements with the Federal government control programs and are stable and self-supporting. Aeeurate and timely reporting of livestock conditions and markets, plus the valuable forecasts based on actual polls of farms, are vital faetors in the success of this control-free segment of the agricultural economy, and we owe a great deal to this aeeurate reporting.

I'll sum up my feelings by saying that supply management by government over the past 30 years has not changed much, and has had little of the effect it was designed to produce. But because of its politieal connotations, it will be with us for many years to come. — *John Reohr, Jr., Union Springs, N. Y.*

HE'S MAD!

I have for many years bought a small amount of wheat for poultry feed. This year the crop that I usually buy was light, so I bought a small patch aeross the road and paid the prevailing price of $1.90 per bushel. A few days ago a representative of the ASC office called and said he had been informed of my transaction, that the grower had no allotment and, since I had no permit to buy, I was in violation and therefore subject to a penalty of twice the support priee.

Now in all this there was no intent to evade any law, no attempt to hide anything as there were witnesses and, as far as I am concerned, no crime was eommitted. I wasn't dealing in narcotics or illicit whiskey but wheat, common poultry feed that I can buy at a feed dealers any time without a permit—but not from a neighbor!

We aeeept no government subsidies and feel that, if anything, we should receive credit rather than a penalty. If, in the fifteen years I have had this farm, I had availed myself of the different government aids, I could have taken in thousands of dollars. As it is, we spend annually $2,000 for lime and fertilizer.. — *August Rabenstein, Berkshire, N. Y.*

CAREERS UNLIMITED

(Continued from Opposite Page)

He will soon have his Master's degree, and will eontinue on for his Ph. D.

David graduated from the State College of Veterinary Medicine in 1961, and is now in the U. S. Air Foree, stationed at Izmir, Turkey. When he eompletes his stint in the serviee he plans to become a praeticing veterinarian.

There you have the experiences of the Taylor boys, proof positive of the value of attending a Land-Grant college and taking advantage of its possibilities whether or not you intend to remain in actual farming.

There are many fine jobs these days elosely eonneeted with agrieulture—and where a farm background gives an applieant a head start. There's a new ehallenge in agriculture today—and for tomorrow!



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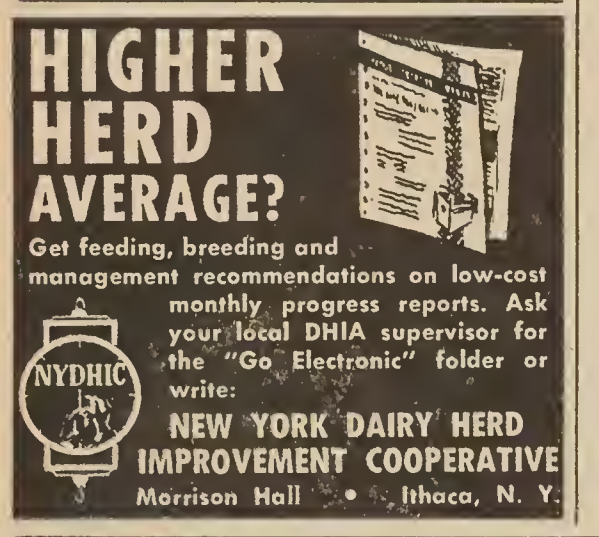


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Let's Take Another Look At Business and Government

By THOMAS R. REID*

IN THE UNITED STATES, the present pattern of the business-government relationship has been building since the Great Depression —and even before. It was given great impetus and much of its formal structure by the New Deal. But it has survived and been further extended by both Republican and Democratic administrations. There is no evidence at all that government intervention in business will lessen. Rather, in Washington and state capitols alike, the question is: What are the outer limits of government's reach in business affairs? How far is too far?

The role that government has assumed in the economy is not something that wily administrators and lawmakers have slipped over on an unsuspecting and fundamentally disapproving public. There is every indication that the American public accepts and often demands a basically activist role for government — in Washington, in the state capitol, even in the city hall.

With such encouragement, governments tend to make more and more of the decisions affecting people's freedom rather than allowing people to exercise these choices themselves.

We find it difficult to understand how any large part of the electorate could concur with this attitude, even though it may be both benevolent and sincere. We wonder why people fail to see that any significant interference with free market forces — and the freedom of individuals to choose as they will—can in the long run bring on more ills than it heals. We deplore their willingness to let governments attempt drastic cures on a vital and useful economic system that can stand only a limited amount of manhandling.

What We Must Do

We may—and should—try to educate, persuade and convince the electorate of the fundamental value of our system. But at the same time we must realize that many, many people seem perfectly content that governments created at their direction intervene in the working of the economy. Big government is not going to wither away for lack of popular approval.

Our job, then, is to learn how to do business with governments as they actually exist here and now.

How do we go about this? The first thing we must do is to change some of our attitudes and put them in step with the political, governmental and business realities of our day. As a start, I would make these suggestions:

First, it is not enough for businessmen to cry that government is anti-business unless they seriously ponder whether business may be anti-government.

Second, it is not enough for businessmen to moan that this or that problem is none of the government's business, unless they are willing to take a hand in resolving the problem through other means—and thereby make it unnecessary for government to step in.

Third, it is not enough for businessmen to decry the further centralization of government in Washington without doing something themselves to help strengthen the hand of state and local governments to deal with the things that Washington otherwise will have to handle.

Fourth, it is not enough for businessmen to lament the proliferating functions of government while they work only for the adoption of governmental actions or programs that will protect their **own** interests and their **own** business needs.

Too many people in business often act and talk as though government were their mortal enemy. The overall basis for this psychology is dubious—no matter what we may think of the wisdom of many things that government does. Beyond that, it is an ineffectual attitude. We surely would accomplish more if we devoted more of our energy for the adoption of programs and policies that are sound and practical from the standpoint of the whole public.

Positive, Practical Approach

Do not mistake me. I do not suggest we be any less vigilant toward government. Every service that is provided, every function that is performed by government must be justified in need and in sound and balanced public policy. We must get our money's worth for every dollar that is spent. Nor do I suggest that business people do an about-face and become the happy advocates of all that they have in their hearts and consciences been opposing.

What I do suggest is that the businessman's interest in the things he is for and the things he is against needs to be registered more effectively. And this means being ruthlessly efficient with ourselves. We have to get rid of attitudes and methods that do not fit our times and replace them with positive and practical new approaches — no matter how much it may hurt.

Leadership

Even though government in America is the produet of a political process, American business has traditionally maintained a stiff-necked attitude toward politics and politicians. Politics was supposed to be controversial and not altogether respectable, and therefore should be avoided.

If we want better government, then this thinking simply has to go. When we discourage people from political activity, we cut off the very lifeblood of good government. **Whatever may be wrong with politics, the trouble is not so much with those who are in it as with those who are not.** Because of its former attitude, business has to take the lead in encouraging more people to participate actively in their own political parties.

* Manager, Civic and Governmental Affairs, Ford Motor Company
(Reprinted courtesy of Monitor)



Service Bureau

READ THAT CONTRACT!

"My son signed up for a correspondence course with a representative from the school. He made a down payment with the agreement that he would pay the rest if he intended to take the course. He also understood that he would be sure of a job when completed.

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The contract, which our subscriber's son signed, is a bona fide contract and he can be held to it. The cancellation clause states that the contract can be cancelled within 30 days by paying the full registration fee (which is shown on the contract as $175.00. and of which he had paid $50.00).

Also, under "Employment Guidance Service," they state that they do not guarantee employment—only a guidance service.

Unfortunately, this happens too often to young people. They are interested in further education, but are not aware of the danger of relying on the promises of the salesman. It is extremely important to read the contract carefully. Most all correspondence school contracts contain a cancellation clause, stating in the event of cancellation a certain amount of the total must be paid.

It should also be noted that, while some schools offer to help place students, they cannot promise employment.

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"I have been a subscriber for a number of years and I don't see how Protective Service could be given for the price of a subscription. What does my 'Protective Service' membership mean?"

Long ago, our Protective Service Bureau was set up to give free help and advice to our readers. We try to iron out difficulties between our subscribers and commercial concerns; we furnish information on certain companies; we answer questions concerning posting, fencing of property, and other regulations.

Also, for several years we have offered rewards for information leading to the arrest, conviction and imprisonment for at least 30 days of those people responsible for various crimes against AMERICAN AGRICULTURIST subscribers. Our purpose is to encourage readers to give information to law-enforcement authorities as well as to show criminals that it is not safe to steal from or defraud our subscribers.

We pay the $25.00 reward to the person who gives information, as stated above, concerning anyone who commits the crime of fraud, theft of livestock or poultry, or arson against a subscriber who has our Protective Service sign displayed on his farm.

There is nothing we can do as far as tracing stolen property or catching thieves is concerned; nor can we force jail sentences. We can only hope to encourage. Nor is Protective Service a form of theft insurance as an occasional reader mistakenly believes.

There are a few problems that we are not qualified to handle. For example, we cannot give legal advice; nor can we collect accounts or enter into disputes between individuals. We can handle complaints which you may have against commercial concerns; but, if you have a business, such as a store or garage, we cannot collect accounts for you.

CAN YOU HELP?

Mr. W. B. Field of Hartwick Seminary, N. Y. would like to get a copy of Joseph C. Lincoln's "Our Village" or "The Managers."

Mrs. Alfred O. Carlson, Rolling Hills Farm, West Berne, N. Y., would like directions for making watch fobs from strong, black shoelaces.

Mrs. Otto Sprossel, Dover Plains, N. Y. would like copies of the following songs: "I'm Sending You a Big Bouquet of Roses;" "Born to Lose;" and "Old Shep."

Mrs. Bernice Mott, R.D. 3, Box 256, Willimantic, Conn., would like to buy McCall's Majorette Pattern No. 5513, size 12. It has been discontinued by the pattern company.

Will anyone who has the words to the poem, "Kentucky Belle," by Constance Fenimore Woolson, please send them to Grace B. Ferns, Springfield Center, N. Y.

Mrs. Frank Knievel, R. D. 1, Box 44, New Paltz, N. Y., would like to buy a copy of "I Remember" by Jennie Prince Black.

Miss Dorothy Perkins, Box 84, Hampden, Me. would like directions for crocheting a baby set, using a pineapple stitch, (not like the one in doilies).

ADDRESSES WANTED:

Do you know the whereabouts of: John Grimm, whose last known address was Detroit, Pa. His sister, Mary, and brother, Andrew, would like very much to hear from him.

The former Ruth Hawkins, whose last known address was Ithaca, N. Y.

Ora Russell (or his mother, Mrs. Carrie Russell), who formerly resided in Silver Creek, N. Y., and whose last known address was Onconta, N. Y.

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The board members who vote have a future the same as yours. They represent 24 different districts spread across six states. They work hard for the producers who elect them. And they are dairy producers themselves.

They know their policy (and yours) must work. That's the reason for the League's long experience as a "full-scale" cooperative.

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PUBLISHING AND CLOSING DATES

December Issue Closes Nov. 5	February Issue Closes Jan. 5
January Issue Closes Dec. 5	March Issue Closes Feb. 5

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(Continued on Opposite Page)

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Dates To Remember

November 5-9 — A. I. Training Course for Beef, Dairymen, Herdsmen, Cornell University, Ithaca, N.Y.

Nov. 5-29 — Annual meetings American Dairy Association and Dairy Council of New York: Nov 5, Haverling Central School, Bath; Nov. 6, Elementary School, Randolph; Nov. 7, Grange Hall, Mansfield, Pa.; Nov. 8, Methodist Church, Clifford, Pa.; Nov. 13, Caterpillar Auditorium, York, Pa.; Nov. 14, Community Hall, Vicksburg, Pa.; Nov. 15, Central School Cafeteria, Cato; Nov. 19, Free Library, Cincinnatus; Nov. 26, Castle Hall, Oneida Castle; Nov. 29, Elementary School, Owego.

November 8-9 — NYDHIC Annual Meeting, Utica, N. Y.

November 10 — Feeder Calf Sale & Grading Demonstration, Caledonia, New York.

November 12-14 —New York Farm Bureau Annual Meeting, Syracuse.

Nov. 26-30 — Short Course, Herd Management, Cornell University, Ithaca, N. Y.

December 1 —New York Hereford Association's Annual Meeting, Syracuse, N. Y.

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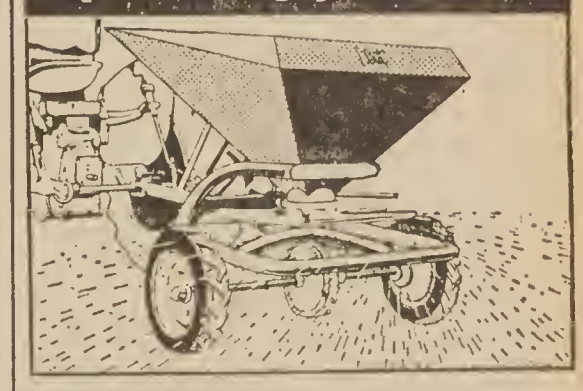
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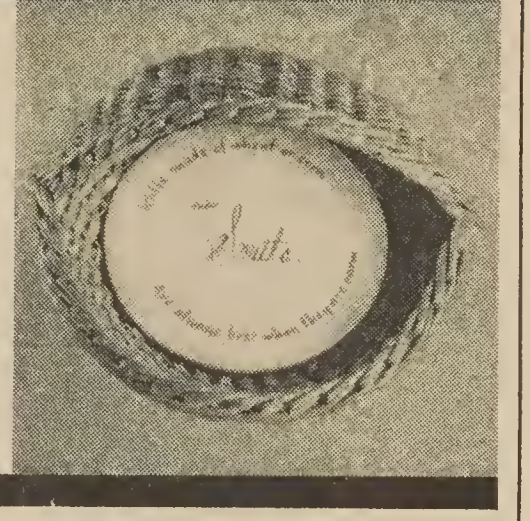


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½ cup Brer Rabbit Molasses*
1½ cups whole bran cereal
1½ cups milk
1 egg, slightly beaten
1 cup sifted flour
1 teaspoon baking soda
½ teaspoon salt
1 cup chopped dates



Place molasses, whole bran cereal and milk in mixing bowl and let stand 15 minutes. Blend in egg. Sift flour, baking soda and salt and add to dates. Add to molasses mixture, stirring just enough to blend. Fill greased muffin pans ⅔ full and bake in hot oven (400°F) about 20 minutes. Makes approximately 1 dozen muffins. Serve hot with butter.

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The easy cooking and cleanup qualities of cookware coated with "Teflon" are well demonstrated in this picture. Even melted and burned cheese can be quickly whisked away with a sponge.

A Day with Du Pont

By **AUGUSTA CHAPMAN**, *Home Editor*

LAST MONTH when in Washington, D. C., for the fifteenth annual convention of the National Farm Home Editors' Association, I had an opportunity to see some of the new products that one company is developing for the home. A chartered bus picked us up at our hotel one morning, and we drove through the beautiful Maryland and Delaware countryside to be guests of the Du Pont Company at Wilmington for a day.

The first event planned for our enjoyment was a tour of Winterthur Museum. We went through about half of the one hundred rooms in this fascinating mansion that was the Du Pont family residence until 1951. Each room in the museum is furnished with American antiques, arranged as they might have been in the homes throughout our Country during the period from 1640 to 1840, and is a perfect reproduction of the past, complete to the smallest detail. It is said that Winterthur represents the largest and costliest collection of American furniture ever assembled.

After a wonderful lunch at the Du Pont Country Club, we took a "Look At Next Year," with several staff members from the Public Relations Department showing us what the people at Du Pont have been working on to either bring new products into existence, or to improve the ones already available to the homemaker. I want to tell you about just a few of these recent developments.

Non-Stick Cooking Utensils

About a year ago we began to hear of non-stick pans for greaseless frying. Now, during October and November of 1962, Du Pont, cooperating with leading cookware manufacturers, will place at least a dozen different types of new non-stick items on the market. At first, many of these new wares will be available only in nine test cities, but if they prove as popular as I think they will, it should not be long before they can be purchased in any department store. And some items will be available immediately in all areas.

"Teflon" is the magic word which stands for non-stick cooking with no-scour cleanup, and these new items will include both electric and regular frypans and griddles, saucepans, muffin and cookie pans, roasting pans, bread pans, and casseroles. The easy cleanup quality of this ultra-slick finish greatly reduces kitchen chores, for even stickiest foods, like macaroni and cheese and scalloped potatoes tumble out of the corners of a casserole at the nudge of a sponge. Soaking and scouring are eliminated, and often the pan needs only to be rinsed under a faucet and then wiped dry.

And, joy of joys, eventually we're to have "Teflon" on the interior of our ovens! Won't that be something when a few swipes of a sponge or dishcloth will keep our ovens clean and sparkling?

Ironing Board Covers, Too

This unique Du Pont plastic is also contributing to more efficient use of the family iron, and we will soon be ironing with a minimum of effort on a more durable, scorch-resistant ironing board cover. "Teflon" is non-flammable and the most heat resistant of all plastic materials.

(Continued on Page 45)



No prying is needed to remove muffins from new non-stick pans. They tumble out when the pan is tipped, leaving no crumbs in the cups.

Festive Foods for THANKSGIVING

By ALBERTA D. SHACKELTON



THANKSGIVING, the one truly American Family holiday, is a day different from any other. Maybe this is because it was celebrated first in 1621 by Pilgrim families, grateful for a bountiful harvest after a winter of hardship.

Certain of the grains and vegetables, wild cranberries, and wild turkeys eaten on this first feast day remain traditional for Thanksgiving. From east to west and from north to south, the rest of the menu may vary, but poultry, squash, pumpkin, and cranberries in some form appear with regularity.

No matter what the menu variation may be, it is the time for families from near and far to enjoy this holiday with the best in cooking served in festive manner from the family dinner table, or from a buffet table beautifully set with choice table appointments. No sweeter words are ever spoken than "Home for Thanksgiving."

Two Thanksgiving dinner menus are suggested below. You will find recipes for starred (*) items.

MENU NO. 1

Spiced Tomato Juice (hot or cold)
Sesame seed Crackers
(served in living room)
Roast Turkey
Savory Dressing Giblet Gravy
Sweet Potatoes Meringued*
Creamed Cauliflower with Peas*
Old-fashioned Cranberry Jelly
Citrus Salad Plate*
Fruit juice-olive oil Dressing
Date Pecan Torte*
Fruits of the season Coffee Nuts in shell

MENU NO. 2

Seafood Cocktail
Pair of Roast Chickens, Small Turkeys, or Ducklings
(or individual Rock Cornish Hens)
Rice and Mushroom Stuffing Gravy
Scalloped Oysters*
Baked acorn squash rings
Broccoli with toasted almonds
Grapefruit Salad Ring*
with
Whole Cranberry Sauce
Thanksgiving Ribbon Cake with Harvest Frosting*
Nuts Coffee Mints

During the recent 1962 New York State Exposition in Syracuse, I attended one of the food demonstrations titled "A Thanksgiving Feast." To give a modern touch to traditional Thanksgiving foods, suggestions included turkey stuffings such as chestnut, wild rice, or savory bread stuffing, a casserole of sweet potatoes and apples, glazed squash, sweet potato porcupines, cranberry sauce in orange shells, and Indian pudding.

You will be interested in the less commonly used Wild Rice Stuffing for which the recipe is given below. The sweet potato porcupines were made by shaping mashed sweet potatoes seasoned with butter, egg, and salt and pepper into pyramids, sticking with blanched almonds, and heating in a moderate oven. Scooped-out orange shells filled with whole cranberry jelly could be used to garnish the turkey.

SWEET POTATOES MERINGUED

Allow about 1 medium sweet potato per person to be served. Wash, cook with skins on until tender. Cool, remove skins, and mash potatoes thoroughly. Add about ½ cup light brown sugar (for 6 servings), 3 to 4 tablespoons cream depending on moistness of the potatoes, 3 to 4 tablespoons butter, salt to taste, and mix well.

Place in an attractive oven-to-table casserole and chill. (This can be done a day ahead of time.) About 30 minutes before serving time, place casserole in moderate oven to heat mixture thoroughly.

Prepare a meringue by using 3 egg whites and 6 tablespoons sugar. Pile meringue around edge of potato casserole and return to moderate oven (350°) for 8 to 10 minutes, or just until meringue is lightly browned.

CITRUS SALAD PLATE

Arrange crisp salad greens on an oblong tray or platter large enough for desired number of salads. On greens, place alternating grapefruit and orange sections and slices of peeled avocado. Garnish with curly endive and serve with a French dressing made with orange or lemon juice, olive oil, and a bit of grenadine or maraschino sirup for color.

SCALLOPED OYSTERS

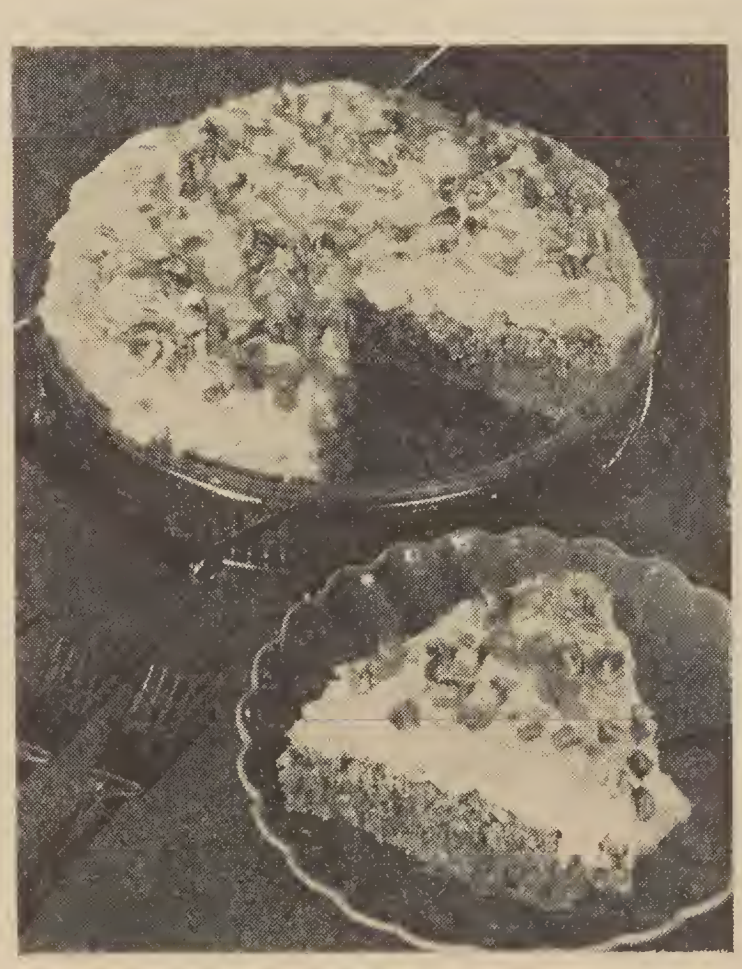
3 cups fairly fine cracker crumbs
½ to ⅔ cup melted butter
1½ pints oysters (fresh or frozen, thawed)
About 1 to 1½ cups liquid-oyster liquor plus enough cream or rich milk
Salt and pepper

Mix crumbs and butter and place ⅓ of them in the bottom of a shallow greased 1½ quart casserole or pan. Distribute ½ of the oysters over the crumbs and sprinkle with salt and pepper. Cover with second third of crumbs and then the rest of the oysters and sprinkle with salt and pepper. Pour liquid over all just to moisten and then sprinkle with remaining third of crumbs. Bake in a moderate oven (350°) 30 to 40 minutes. Serves 6.

CREAMED CAULIFLOWER, PEAS AND MUSHROOMS

1 medium size head cauliflower
2 packages frozen peas, cooked
3 to 4 cups rich, well seasoned cream sauce
1 large can sliced mushrooms, drained

Separate flowerets of cauliflower and cook in boiling salted water just until tender. Drain and combine with cooked peas, drained mushrooms, and enough of the cream sauce to moisten well. Place in a 1½ quart casserole and heat in a moderate oven about 20 minutes until hot. Serves about 10.



For a Thanksgiving dessert that's different, try the recipe for Date Pecan Torte on this page.



A pair of chickens or small turkeys roasted to a golden brown might be the star of your Thanksgiving Day dinner.

GRAPEFRUIT RING MOLD

1 can grapefruit sections
1 small can grapefruit juice
2 envelopes unflavored gelatine
8 stuffed olives sliced
4 pitted ripe olives slieed

Drain grapefruit sections well. Add drained sirup to grapefruit juice and enough water to make 3½ cups. Soften gelatine in 1 cup of the liquid. Heat remaining liquid. Combine and stir until gelatine is dissolved. Chill until consistency of unbeaten egg white.

Lightly brush ring mold with salad oil. Arrange some of the fruit sections, stuffed and ripe olives in pattern in bottom of a 5-cup ring mold. Spoon over enough of the chilled gelatine mixture to cover fruit and olives. Chill until almost firm. Repeat procedure. Chill until firm. Unmold on serving platter and fill center with salad greens, whole cranberry sauce, or cottage cheese, and surround grapefruit ring with greens and sections of fruit. Serves 8 to 10.

DATE PECAN TORTE

3 eggs, separated
2 tablespoons water
⅔ cup sugar
1 teaspoon vanilla
1½ cups cut-up dates
½ cup all purpose flour
½ cup graham cracker crumbs
2 teaspoons baking powder
¼ teaspoon salt
1 cup coarsely chopped pecans
½ cup halved candied cherries

Combine egg yolks and water and beat until very light and thick. Add sugar gradually and continue to beat well. Stir in vanilla and dates. Mix together the flour, graham cracker crumbs, baking powder, and salt and add to the egg yolk mixture. Fold in the nuts and cherries and lastly the egg whites, which have been beaten until they form stiff, moist peaks.

Place in a well greased 9 or 10 inch pie pan (1½ to 2 inches deep) and bake in a moderate oven (350°) about 30 to 40 minutes or until it tests just done when lightly pressed in center with fingers. (If you use an oven-glass pie pan, bake at 325°.) Serve warm, cut in pie-shaped pieces.

At serving time cover torte with whipped cream and sprinkle generously with pecans, or top individual wedges with whipped cream, or serve with Foamy Sauce, Hard Sauce, or any desired flavor ice cream. Serves 8. This dessert can be made ahead of time and frozen. To serve, wrap in foil and place in a slow oven until thawed and heated throughout.

THANKSGIVING RIBBON CAKE

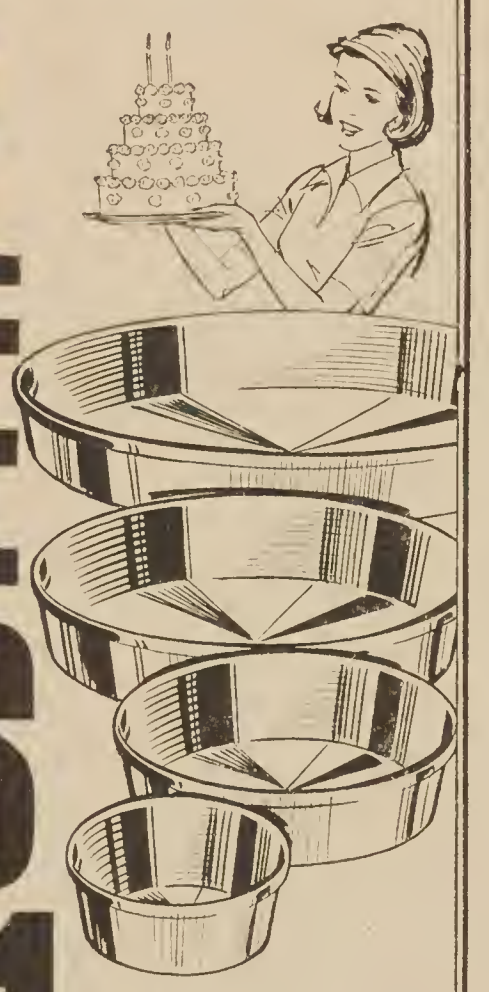
⅞ cup shortening
1½ cups sugar
4 egg yolks
1 teaspoon vanilla
3 cups sifted cake flour
4 teaspoons baking powder
¾ teaspoon salt
¾ cup milk
1 teaspoon cinnamon
¼ teaspoon cloves
⅛ teaspoon baking soda
2 tablespoons cocoa
2 tablespoons water
1 egg whites beaten stiff

Cream together the shortening and sugar until light and fluffy. Add yolks one at a time, beating after

(Continued on Page 42)

Specially designed

TIER CAKE PANS

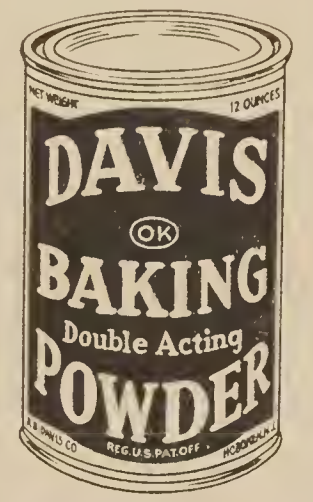


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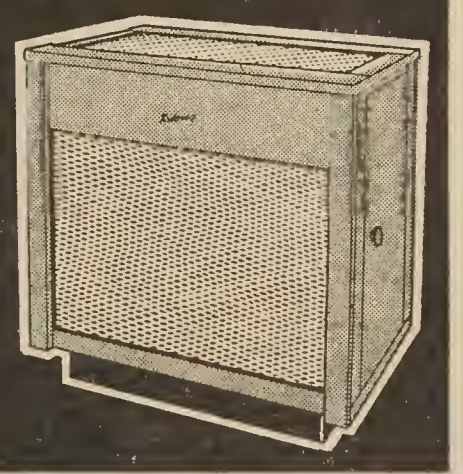
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Isaac Hill's Account Book

By INEZ G. GRIDLEY

THE FLAVOR of everyday life in another time, with a reminder of how important has always been the exchange between business and agriculture, comes to us from an old aeeount book, with an honesty and accuracy that a diary might lack. Reading these entries from the aecount book of Isaae Hill, lumberman and farmer, can't you picture him doing the day's bookkeeping at the kitchen table by candlelight?

What folks ate, what they wore, and what wages a man could expeet for a good day's work from sun to sun, are just a few of the things this old account book tells. We also learn what bark was bringing at the tannery and how much it cost to run a district school. And, reading between the lines, we can see how independent Isaae Hill was—framing a barn, doctoring his horses, yet at the same time needing the community market place to exchange goods and serviees.

The entries in Isaac Hill's book begin in 1849. Sometimes in ink, sometimes in pencil, but always Isaac wrote a good hand. He figured sums on the margins and fly leaves; here is a sketch of a plan for a barn and cowshed, 30 feet by 20 feet. Chances are it was framed and raised, but the old account book has probably outlasted the timbers.

In 1849, hereabouts, butter was selling, "eighteen pound, $3.00; fat, five pound at 30 cents." In 1850, three days' haying wages brought $1.50. In 1851, one pound plug tobaeco eost 37 cents and two yards of eloth, $1.25. Ninety-two pounds of beef brought $3.68; mutton was 10 cents a pound; timothy seed cost 88 cents a peck.

When Isaac Hill was school trustee of District 22, Town of "Warsing," Ulster County, he made this entry, "The Publick Money Drawed for Schooling Purpos was: Rochester, $9.20; Warsing, $11.30; Dening, $8.23." He also drew an order on the supervisor to pay, "Miss Ester Van Wagener Forty-five dollars 28 cents acount of wages earned by her when duly qualified as a teacher in Deastrict No. 22—between the 17th day of March and the 27 day of October 1858. Date Warsing Oct. 27, 1858."

Receipts for plaster and liniments for a horse and a "heeling salve for man or beast" found their place in the account book of Isaac Hill. Horse powders, liniment for spavins, and many other homemade remedies were given space.

We discover that a peck of salt cost 18 eents; small shoes, 56 cents; four tablespoons, 75 cents; bed tick (three yards) 75 cents; bed cord, 31 cents; one pound "salratus" (saleratus or baking soda), 12 cents; and one pound "peper," 13 cents.

On one December 29, a "wip lash" cost 12 cents; three yards calico, 33 cents, and one spelling book, 12 cents. A few days later, on January 14, "four yards mole and trimmings" cost $2.82. Can you see the calico and Sunday-go-to-meeting dresses?

The daily picture of life unfolds—"making coffin $3.00; loging 17 Akers of land $42.00; ½ day at the mill 75 cents; one day Log drawing $1.75."



—USDA Photo

The "street" down which Isaac Hill drove his horses on market day might have looked something like the one pictured above. Here Isaac sold his butter and eggs and bought the wares his family needed.

Supplies were bought in quantity. One November 15 saw these entries: "1 Barl weet flour $6.50, 1 pound of tea 88¢, 1 Barl pork $11.50, 1 galon of molases 38¢."

Over and over again, the same staples were purchased — flour, salt, tea, saleratus, molasses, turnips, and sometimes salt pork and salt fish. Once in a great while honey and cheese were bought. There were butter and potatoes to sell, and sometimes a pig.

The entries may seem fragmentary, but they tell a clear story about far-off days. No man now living "pealed" bark for the tannery at Lackawack, and probably no woman lives who made do with soft soap and homespun, butternut dye and herb tea.

Isaac Hill's account book takes us away from our fast-paced world of modern roads, efficient machinery, lights, telephones, newspapers, and television. We go back in imagination to a day of log cabins and plank houses, of roads muddy in spring and dusty in fall—a day long ago and far away and oxen-slow.

VETERANS' DAY

By Frances Rodman

Young were the hearts that ceased to beat,
And young the eyes that wept;
Young were the lads that laid them down
On foreign shores, and slept.

Old are the hearts that recollect
The lost, the loved, the fair;
And old are all who learned in grief
Pain grows no less to bear.

GARDENS TO BED

By NENETZIN R. WHITE

CUT YOUR GRASS as late as necessary so that it won't go into the winter more than two inches long. Long grass matting during the winter encourages fungus, snow mold, field mice, moles, and protects insects and their eggs. Once, a man phoned me on a mild day in mid-December to ask if he shouldn't cut his grass. It was long, and my answer was "yes." He said he had been sure it would be all right to mow, but he wanted our assurance so that his neighbers wouldn't think he was "a little off in the upper story."



NENETZIN R. WHITE

If you have a lot of leaves, try to remove them. Matted leaves will also cause most of the above mentioned problems. Remember that matted leaves, before they have rotted, form an impermeable layer through which little moisture or air can pass. These same leaves, however, put into a compost pile will soon give you beautiful soil.

If you have, or can borrow, a rotary mower, you can chew the leaves into tiny pieces, which can be left where they fall. It is best when doing this to go over the lawn a couple of times, first when half of the leaves have fallen, and again later. Heavy rains will mat the leaves so that a rotary mower cannot pick them up.

Compost Pile

A compost pile is a wonderful thing, but few people today will bother with one. It is just layers of leaves or any organic matter interspersed with fertilizer and soil. By turning these over a couple of times a year you will soon have a wonderfully friable and fertile soil, the likes of which you cannot buy.

We, in the nursery business, are very conscious of the cost of good soil. As you know, every time we dig up a plant, a ball of good topsoil goes with it. Consequently, when a block of plants has been dug, a good portion of the topsoil has been stripped. We then have to recondition the block, which takes approximately a year and a half before we can replant it.

We feel the following process is the best way to improve the quality of poor soil. First, the area is heavily manured in the winter and plowed and harrowed in the spring. The first crop that we put on it is buckwheat because its horizontal leaves shade germinating weed seeds and restrict them. Just before the crop is ready to seed, while in full flower, it is plowed under. Then another crop of buckwheat or rye is sowed and plowed under.

The above are called green manure crops, and sometimes we get three "crops" in one season. At the end of this process we really have a nice friable, fertile soil. Then we sow rye in late September or early October, and plow it under the following May or June. The soil is now ready for the new nursery stock.

We protect plants in winter to keep them from alternately freezing and thawing, not to keep them warm, so this should be done late in the year, even after the ground is frozen. In the case of hybrid tea roses it is wise to mound up soil around the plants before the ground freezes, but after the plants have hardened off. This means having ten to fifteen days of good cold weather so that the bark or stem covering is not soft and lush, but hard and dormant.

Water late in the year, especially evergreens, including the broad-leaved ones such as rhododendrons. These plants will be giving off water most of the winter and will dry up and die if water is not available to them. After this year's drought, we know that our water table is dangerously low.

If you don't have water, or can't soak your plants, a good mulch will help. After we have some good fall rains (I hope), put a layer of peat moss all over the root areas of your plants, then straw, and a final cover of evergreen boughs to hold all intact. There are other mulches—in fact, anything will help—but I think the above combination is ideal. We use chlordane sprinkled under our mulches in order to discourage mice, chipmunks, and such.

GRAY SQUIRREL

By Russell Pettis Askue

My friend, you're greatly over-rated,
Not prudent, merely addle-pated;
It's true you bury acorns, yet
The oak trees grow where you forget.

THE DAIRYLEA FAMILY

I went to Syracuse, New York, on October 10 and 11 for the annual meeting of the Dairymen's League Cooperative Assn., Inc., and for those two days felt almost like a member of "the family." With the men serving as delegates, the women as associate delegates, and the young people present for the Young Cooperators' meeting, here was the "togetherness" we read so much about—in action. I had a wonderful time and appreciated the friendly atmosphere, which made me feel welcome.

On Wednesday afternoon, the guest speaker, William D. Knox, Editor of Hoard's Dairyman, made a statement I have heard several times in recent weeks—namely, that our reserve food supply, and because of it our capacity to survive an enemy attack, is the greatest deterrent to Communist aggression. It would seem that here we have a very valuable weapon if we recognize its worth and take steps to see that the food is properly distributed and available if and when needed.

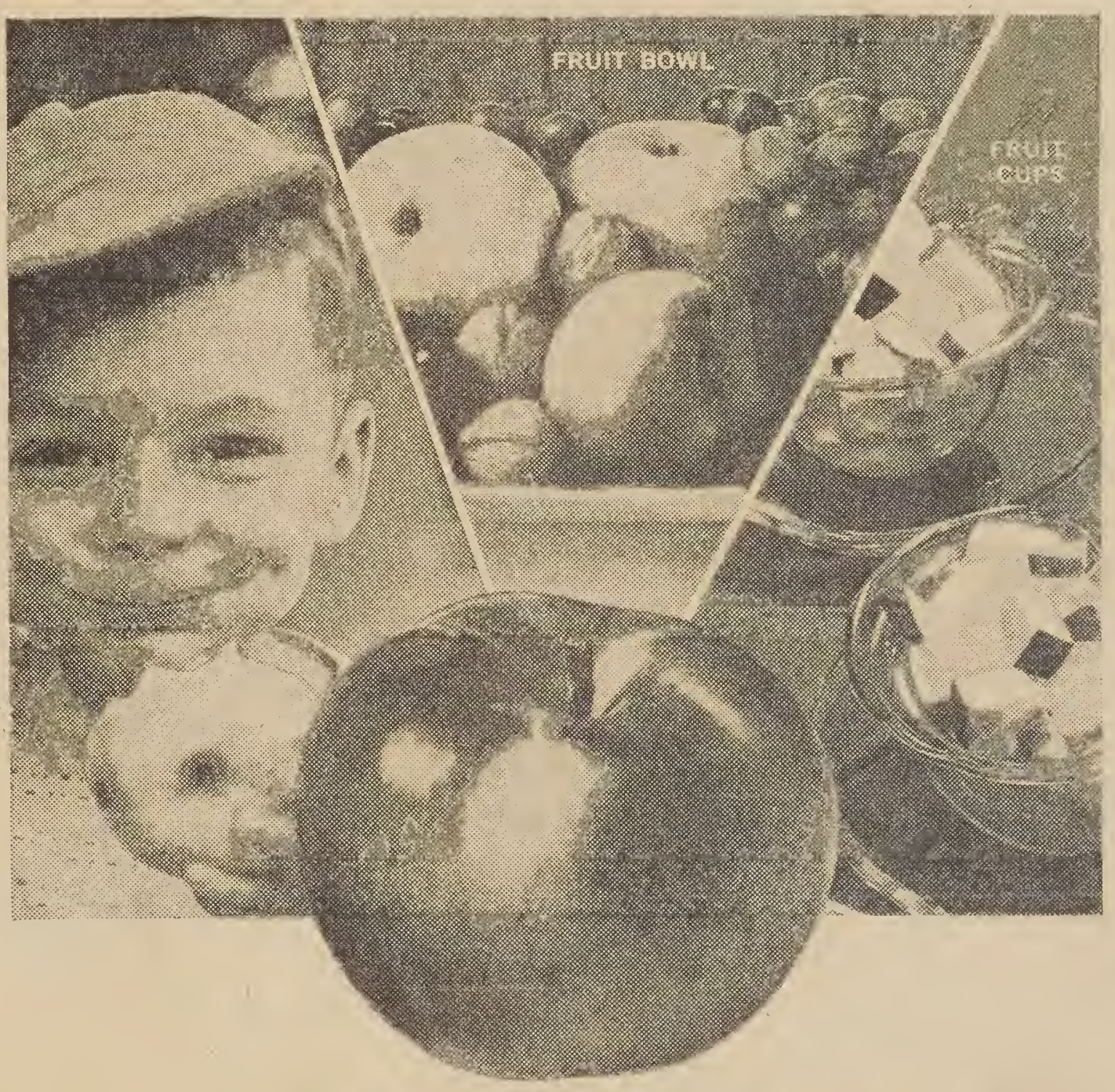
Home Service Program

At the Home Service Program on Thursday, October 11, Miss Grace R. O'Keefe, Program Director for the National Dairy Council, talked about food facts the public should know. Miss O'Keefe believes that our number one public health problem in America is overeating, not an unsafe food supply. She also feels we should worry less about vitamins, minerals, and cholesterol, and strive to establish a good, basic diet pattern which we can follow throughout life. We should also get over this idea that milk is fattening, for dairy foods are a very necessary and important part of a good diet. And, if each of us would use the amount recommended for our daily needs, the problem of surplus milk would be quickly solved.

Young Cooperators

Each time I've had any contact with Young Cooperators, I've been very impressed with these Dairymen's League young people and the job that "Woody" Corfman is doing to help them develop good leadership qualities. At their afternoon session on Thursday, Mr. V. O. Parizo, Membership Manager for the parent organization, suggested the following goals for the coming year: (1) A drive for new members, (2) Learn about cooperatives and marketing milk, (3) Learn how to solve problems, and (4) A closer relationship between youth and adults in the Dairymen's League.

—*Augusta Chapman*



. . . and apple pie, of course!

Congratulations to the lucky winners of the New York State Grange Apple Pie Contest. Not only does New York lead the nation in apple production, but probably in apple pie, too! And don't forget all the other delectable things you can do with apples. Select your favorites for cooking, baking, salads, or just plain munching—at food stores everywhere. Everybody loves apples—so many ways!

Apples in the Morning-Apples in the Evening-Apples Anytime!

A MESSAGE FROM THE WESTERN NEW YORK APPLE GROWERS



Bake it high, higher, highest with Fleischmann's Yeast. —it's extra active!

WALNUTTY COFFEECAKE *(makes one 9-inch square)*

- ¾ cup sugar
- ½ cup (1 stick) Fleischmann's Margarine
- ½ cup finely chopped Planters Walnuts
- 1 teaspoon cinnamon
- 1 package Fleischmann's Active Dry Yeast
- ¾ cup warm water
- ¼ cup sugar
- 1 teaspoon salt
- 2½ cups unsifted flour
- 1 egg
- ¼ cup (½ stick) Fleischmann's Margarine

Mix ¾ cup sugar, ½ cup melted margarine, walnuts, cinnamon. Spread in a greased 9" square pan. Dissolve yeast in warm water. Add ¼ cup sugar, salt, half the flour. Beat until smooth. Add egg and ¼ cup softened margarine. Add rest of flour, beating until smooth. Spoon into pan, spreading evenly. Cover; let rise in warm draft-free place until doubled, about 1 hour. Bake at 375°F. for 25 to 30 min. Invert on rack or plate. Serve in warm, wonderful chunks.

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4803. Casual perfection with tabbed front yoke, paneled skirt. Choose cotton, rayon, a smart blend. Printed Pattern in Half Sizes 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

9234. Pleated charmer has open collar, cardigan buttoning. Smart in wool-flannel, a cotton-blend. Printed Pattern in Misses' Sizes 10, 12, 14, 16, 18, 20. 35 cents.



4888. Tailored style features raglan sleeves, slot seaming. Flannel, wool, cotton-tweed, gabardine—all suitable fabrics. Printed Pattern in Half Sizes 12½, 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

9451. Princess jacket, two skirts—slim and gored. Mix or match in wool, jersey, cotton blend. Printed Pattern in Misses' Sizes 10, 12, 14, 16, 18, 20. 35 cents.

9216. Pretty gift apron to sew with or without bib. Trim with embroidery, rick-rack. Printed Pattern in Misses' Sizes Small 10-12; Medium 14-16; Large 18-20. 35 cents.

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What's Your Hobby?

Hobby Letters From Our Readers

Enjoys Crafts

My hobby is doing all sorts of craft projects, and during the past year my interests have been varied. I made engraved trays, marble jewelry, smocked pillows and stocking dolls. I also do many types of embroidery.

At the present time I'm working on puff pillows, macaroni craft and magazine waste baskets. I'm also doing Deerfield, Crewel and Tenerife embroideries, and drawn work.

I would like to hear from women with similar interests.—*Mrs. Jennie Conlon, 39 Ridge Road, South Lansing, N. Y.*

All Kinds of Bells

My hobby is collecting bells. The first one (a cow-bell) came from a farm where we worked when first married. Friends have given me several bells, some glass, some metal, but all welcome additions to my collection. I even made a ceramic bell myself. My most recent prize is a 3-inch bell from a hame strap, usually worn by a horse drawing a sleigh. It has a very mellow, tinkling sound. I have yet to secure a bell like those used on housetops years ago in case of fire or other emergency.—*Mrs. Wilbert Frisbee, R.D. No. 1, Perry, N. Y.*

Player Piano Rolls

My hobby is rather unusual, and I thought it might interest others. I collect player piano rolls and have acquired about 175 from antique shops, second-hand stores, and newspaper ads. I enjoy the older tunes, and I'm especially looking for **Indian Love Call** and **A Shanty In Old Shantytown.** The most I've paid for old ones is 35 cents; the average is 25 cents, and I once bought 75 rolls for $10. I've been collecting for about three years and play them on a piano that I was lucky enough to get for $20.—*Mrs. Norman E. Green, R.D. 5, Brooks Rd., Binghamton, N. Y.*

Remembers Birthdays

One of my hobbies is remembering birthdays with cards. I have 82 names of people from one-year-old to 88-years-old. I also remember wedding anniversaries.

I have quite a number of pen pals from many different states, even from Alaska. Our common interest is a fondness for cats.

I also work puzzles for several companies. While I haven't won a prize yet, I have had a number of "tie-breakers" and enjoy the puzzles. — *Mrs. W. E. McArdell, R.D. 1, Schuylerville, N. Y.*

Collects Post Cards

My hobby is collecting post cards, and I am trying to get cards from each of the 50 states. I should like to hear from other people who have this same hobby.—*Mrs. Willard Conant, South Paris, Me.*

Collects Coins

I have recently taken up coin collecting and just love it. I don't have much money to buy coins, but pick them up occasionally as I can. I shall probably never acquire a valuable or vast collection, but the people I meet while acquiring this collection are just wonderful.

I also have a collection of old post cards, most of them with stamps, that I exchange for coins. — *Mrs. Velma Limlaw, Lyme Center, N. H.*

Likes to Collect

My hobbies are stamps, paper napkins and salt and pepper sets. I have around 275 sets, and want to get a set from every state, with the state emblem, if possible. I would like to hear from readers who have similar hobbies.—*Miss Sadie E. Martin, East Sullivan, Maine*

Saves Box Tops

My niece and I have a hobby which is very interesting, and brings in pin money. We subscribe to what is called "The Quick Silver." It is published once a month with names and addresses of where to send labels, box tops, etc. We receive money refunds and coupons in exchange for labels, box tops and free offers.

—*Adelma Bowes, Washington, Me*

Cuddly Toys

Material that was left over from a coat I made gave me the idea of making a teddy bear out of it. That was 15 years ago, and since then I have made hundreds of animals and dolls for church bazaars and gifts I have also sold many of them.

Among the toys I have made are a bear and cubs; a dog that is a replica of a pet we once had; a dog made of a piece of sealskin; a calico giraffe, chicks, cats, rabbits, monkeys, a frog, a penguin, a kangaroo with its baby in its pouch, and a lion. Also, personality dolls, a wedding party of dolls, a peanut doll, a spool doll, a pajama bag in the form of a spaniel with ears made of yarn. A lion and a doll with a wig made from my own hair won blue ribbons several years ago at our county fair.

Although I have always been able to sell as many toys as I could make, I really don't feel that my hobby is a money-maker. People don't realize the time and material it takes to make these things, and won't pay what they are worth. The best sellers are the Jama bags and the autograph hounds.

All of my toys have special associations for me, as they are made from left-over materials from sewing done either by myself or my friends. I make all my own clothes, even coats and suits, and have sewed ever since I could thread a needle.—*Mrs. John T. Kane, Derby Road, R. 3, Middletown, N. Y.*



A pair of monkeys that would make any small child happy is an example of Mrs. Kane's toy hobby.

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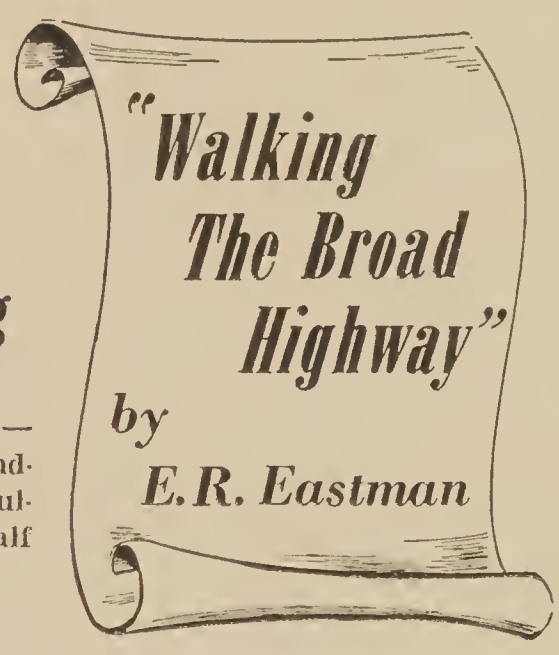
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Festive Foods

(Continued from Page 37)



Pictured at right is the Grapefruit Ring Mold Salad. See recipe on page 37.

each addition. Add vanilla. Sift dry ingredients and add alternately with milk to creamed mixture. Fold in beaten egg whites. Remove ⅓ of the mixture to a separate bowl. Divide the remaining mixture between 2 greased or paper lined 9-inch cake pans. To the reserved portion, mix in the remaining ingredients and pour into a third prepared 9-inch cake pan.

Bake in a moderate oven (350°) about 20 to 30 minutes or until layers test for doneness. Cool pans on wire racks. Remove layers from pan and fill and frost with Harvest Frosting.

HARVEST FROSTING

- 2 egg whites
- 1⅓ cups sugar
- ½ cup light corn sirup
- 6 tablespoons water
- ½ teaspoon salt
- ¼ teaspoon cream tartar
- 1 teaspoon almond flavoring
- ½ cup finely cut SEEDED raisins
- ½ cup finely chopped nuts
- ¼ cup chopped figs

Combine egg whites, sugar, sirup, water, salt, and cream tartar in top of double boiler and mix well. Place over boiling water and beat with a rotary egg beater until light and fluffy and frosting stands in peaks. Add almond flavoring.

Remove about ½ of frosting to a small bowl and fold in raisins, nuts, and figs. Use this to fill layers, placing dark layer in the middle. Use remainder of frosting to frost top and sides of cake. Decorate top of cake, if desired, with toasted almonds and sprays of the cluster raisins available around holiday time, or with chopped or whole nuts. Serves 10-12.

WILD RICE STUFFING

(1962 New York State Exposition)

- 2 cups wild rice
- ½ cup butter
- 1 cup chopped celery
- 1 cup chopped onions
- 2 cups stock or water
- ½ cup sliced mushrooms
- ½ cup chopped green pepper
- 1 tablespoon minced parsley
- 2 teaspoons salt (decrease if seasoned stock used)
- ½ teaspoon Worcestershire sauce

Wash and drain rice thoroughly. Melt butter and add rice, celery, and onion. Cook, with constant stirring, until rice browns. Add stock and remaining ingredients and simmer for half an hour.



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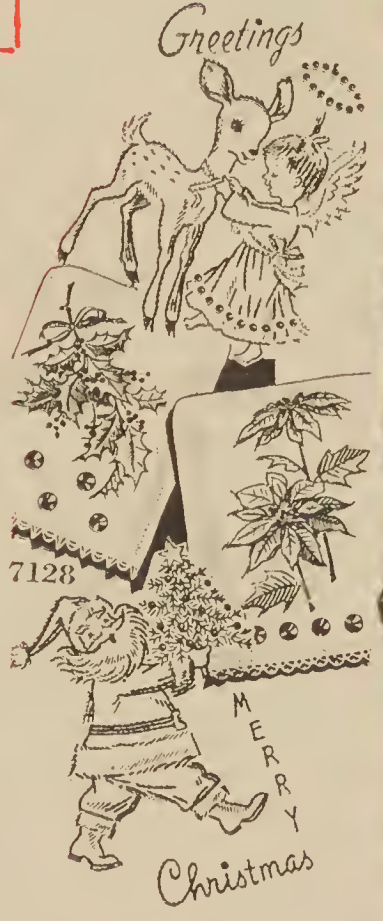
7463. Smocked hats add elegance to your costumes. Make one to keep, one to give. Transfer of smocking pattern for two hats in sizes 21½, 22, 23 inches included; directions. 25 cents.

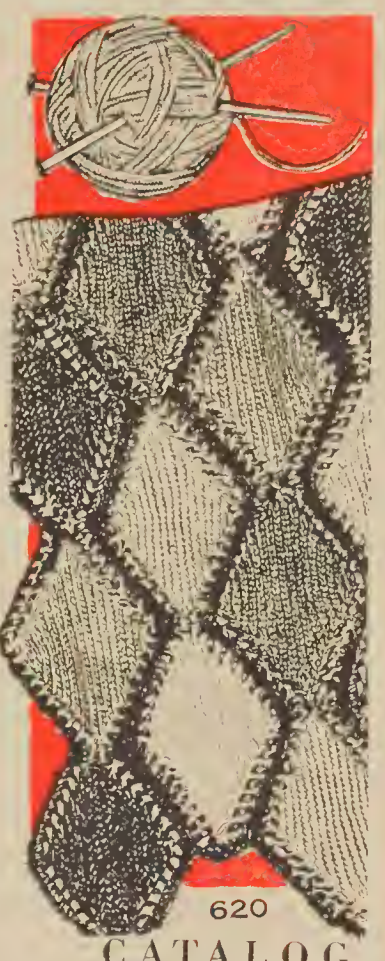
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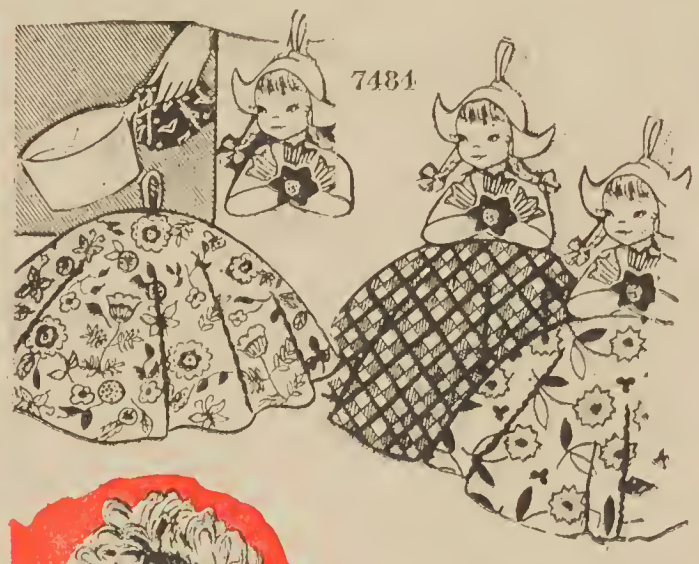

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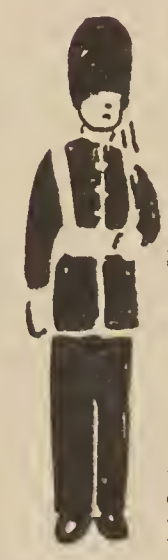
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Pictured above is one of the beautiful hotels at Cortina in the Dolomites. These majestic, snow-covered peaks in northern Italy are among the loveliest of all the Alpine scenes.

1963 EUROPEAN TOUR



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Next will come nine marvelous days in Italy, visiting Rapallo, Pisa, Rome, Tivoli, Florence, Venice (where gondolas will take us to our hotel), and Cortina in the Dolomites, one of Europe's most beautiful mountain ranges.

From Italy we'll cross the famous Brenner Pass into Austria, and after visiting the lovely Tyrolian city of Innsbruck, travel on into magnificent Switzerland. Words fail when one tries to describe the beauty of this Alpine fairyland. Everywhere we go we will see flower-starred mountain slopes, tidy Swiss farms with cows grazing on perpendicular pastures, and high above on all sides the dazzling white peaks of the mighty Alps.

In Germany, we'll cruise down the Rhine River and see ancient castles and steep hillsides covered with vineyards. Our travels in this country will take us to Baden Baden, Heidelberg, Wiesbaden, and Cologne. Then crossing over into Holland, we'll see neat villages with immaculate houses, canals, dykes, fields of flowers, and the quaint Zuider Zee village of Volendam, where the inhabitants still dress in traditional costumes.

At the seaport city of Rotterdam we'll embark on an overnight steamer for England and sightseeing in London, Windsor, historic Stonehenge, and Salisbury with its famous cathedral. At the end of our stay in England, we will have another restful and delightful cruise, this time on the Queen Elizabeth, and we'll hate to part from our friends when we reach New York!

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BRIGHAM FARM JERSEY HERD
NOV. 17th, St. Albans, Vermont
(10:00 A M.)

— 225 Registered Jerseys —

By order of executors of E. S. Brigham Estate
TB Accredited Bangs certified and calfhood vaccinated
Herd average of over 500 lbs. fat for 21 consecutive years.
1961 HIR Herd Average: 9,523 milk and 537 Fat (109 Head)
Classification average: 86.14% (129 Head)

—Selling—

37 Ton of Gold Cows
5 cows with over 100,000 lbs.
23 cows with records above 700 lbs. fat
49 cows with records above 600 lbs. fat
5 Herd Sires

Financing available from Dairy Credit Company, 112 E. Locust St., DeKalb, Ill.
Request catalogs from
CHESTER FOLCK & SONS
Sale Managers, 4810 S. Yellow Springs Road, Springfield, Ohio.

Here's The Way To Curb A Rupture

Successful Truss That Anyone Can Use on Any Reducible Rupture, Large or Small

If you must wear a Truss for Rupture, don't miss this. A Post Card, with name and address, will get you FREE, and without obligation, the complete modernized Collings Plan of Reducible Rupture Control. Now in daily use by thousands who say they never dreamed possible such secure, dependable and comfortable rupture protection. Safely blocks rupture opening, prevents escape, without need of harsh, gouging pad pressure. Regardless of how long ruptured, size, occupation, or trusses you have worn. TRY THIS, and send your Post Card today to Capt. W. A. Collings, Inc., 5 Bond St., Adams, N. Y. Dept. 717Y.

Why "Good-Time Charlie" Suffers Uneasy Bladder

Such a common thing as unwise eating or drinking may be a source of mild, but annoying bladder irritations—making you feel restless, tense, and uncomfortable. And if restless nights, with nagging backache, headache or muscular aches and pains due to over-exertion, strain or emotional upset, are adding to your misery—don't wait—try Doan's Pills.

Doan's Pills have three outstanding advantages—act in three ways for your speedy return to comfort. 1—They have an easing soothing effect on bladder irritations. 2—A fast pain-relieving action on nagging backache, headaches, muscular aches and pains. 3—A wonderfully mild diuretic action thru the kidneys, tending to increase the output of the 15 miles of kidney tubes. So, get the same happy relief millions have enjoyed for over 60 years. For convenience, ask for the large size. Get Doan's Pills today!

LOW COST RUPTURE APPLIANCE Guaranteed

TO BRING
HEAVENLY COMFORT and SECURITY or it Costs You Nothing!



Rejoice, Ye Ruptured! This patented Brooks Air Cushion Appliance—for most forms of reducible rupture—now is positively guaranteed to bring you heavenly comfort and security, day and night, at work or play—or it costs you nothing! Light. No springs or hard pads. Low cost! Buy NO rupture device till you get our free facts. Write!
BROOKS CO., 301 STATE ST., MARSHALL MICH.

KEEP YOUR SUBSCRIPTION TO AMERICAN AGRICULTURIST RENEWED

BUILD THIS MODERN
RANCH HOME!
SAVE ⅓!



SOMERSET, one of 70 beautiful BENNETT HOMES. These houses of superior quality materials are supplied ready-cut, can be built rapidly. Build yourself or local builder can erect.

SPLIT LEVELS • COTTAGES
RETIREMENT HOMES

BENNETT HOMES' selected, quality lumber is ready-cut for size and fit . . . all pieces go together quickly. Complete plans and instructions included with each home sold.

Write today for catalog of Bennett, Quality Built, Ready-Cut Homes.

Representative Wanted

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Bennett Homes
Better Built Ready Cut

192 OLIVER STREET
NORTH TONAWANDA, N. Y.

Supplying fine homes since 1919

complete package of
RANGE VERSATILITY



Monarch SINCE 1896 36 INCH
ELECTRIC COMBINATION

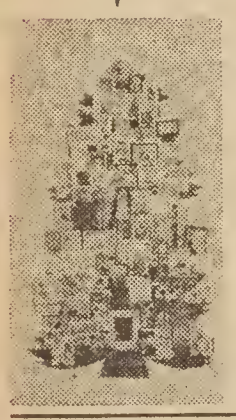
Monarch electric combination range offers new all 'round kitchen efficiency—it cooks, bakes, heats. Features include stylish mantel back, full complement of automatic controls, giant 6726.9 cu. in. oven, super speed surface unit electric section, and heater section for added warmth and cooking.



built-in coal-wood or oil heater section

MONARCH RANGE COMPANY
6312 LAKE ST., BEAVER DAM, WIS.

Easy Trim Christmas Card
★ TREE



Consists of 6 interlocking cardboard sections which form a tree 5 ft. high, 3 ft. wide at base.

It has 130 card slots, hangs on wall. Slip card into slot — no tape, no thumb tacks needed.

Price $2.50
Postage prepaid to All U.S.A.

A. GARRETSON
P.O. Box 85
Whitestane 57, N. Y.

!! WORK CLOTHES - COVERALLS !!

Save 75% of Original Cost

Coveralls	$1.89
Shopcoats, white only, 36 to 46	1.50
Matching pants and shirts	1.50
Pants only $1.00 Shirts only	.50
Matching Gabardine-like pants and shirts	2.00
Gabardine-like pants only	1.25
Gabardine-like shirts only	.75
Heavy twill pants (30-42)	1.50
Heavy Twill Shirts—Dark Colors	1.00
Lined twill jackets (36-42)	2.89



Add $.50 for postage, No COD. All sizes, Colors — Tan, Grey, Blue, Green, White, used, professionally laundered. Satisfaction guaranteed.

PLYMOUTH SURPLUS SALES
P. O. Box 385 Dept. E Gloversville, N. Y.



Children's shoes stay shining and new looking even through everyday wear when they're made from "Pattina."

A DAY WITH DU PONT

(Continued from Page 36)

It also helps make this new cover resistant to stains, and the manufacturer guarantees the cover will outlast five ordinary ironing board covers.

Shining Shoes

In the early fall of 1961, a revolutionary new shoe material was introduced by the Du Pont Company. Called "Pattina," this man-made material offers a gleaming surface, but one that is still natural looking. It has great resistance to cracking, scuffing, and peeling, and is completely unaffected by weather. No polish is required to keep "Pattina" clean—only a swish of mild soap and water is needed.

We saw a pair of bone colored shoes which had been worn extensively, and if we hadn't looked at the soles, we would have thought a salesman had just taken them off the shelf. By next spring these shoes should be available throughout the country in many styles and colors, and at moderate prices.

Push-Button Convenience

Another development by Du Pont, which has almost limitless possibilities, is a liquified gas, "Freon" C-318 propellent. Its chief advantage is in occupying only a very small fraction of the space taken up by a compressed gas. This means that, for example, a 12-ounce can of whipped topping will contain 11 ounces of product when propelled with "Freon" C-318, as compared with about seven ounces when compressed gas is used.

Another advantage is that a uniform pressure is maintained as long as a single drop of the liquid propellent is still available, which allows the homemaker to completely empty the container.

Among the new food aerosol products that may lie just over the horizon are canape spreads, mayonnaise, spices, flavorings, and mustard. Since the containers are sealed and never opened, here is a wonderful possibility for the "spice shelf of the future." Spices and flavorings won't lose their strength, and a metered valve on the package will let the housewife measure the exact amount she wants.

I know that Du Pont is only one of the companies carrying on vast research in order to bring new and exciting products to the American home, but I am happy that our day in Wilmington came at this time, so I could tell you a little of their story in this our Fifteenth Forum Issue.

FREE GIFT

100—PIECE CHRISTMAS ASSORTMENT

Including 15 all-in-color, all different

CHRISTMAS CARDS

With envelopes, plus stringed tags and gaily colored seals for your packages. Sent postpaid when you order your own or a gift subscription.

We have been sending similar gifts to subscribers each fall for several years BUT WE'VE NEVER HAD A NICER CHRISTMAS PACKAGE FOR YOU!



The Christmas package will be mailed as soon as possible after your order is received for Your Own OR a gift subscription.

We will send a card in your name announcing your gift.

You may use one or both coupons.

American Agriculturist
10 No. Cherry St.
Poughkeepsie, N. Y.

A GIFT FOR A FRIEND

Enclosed is $—— for a gift subscription for a friend for the term I've checked. Also send the 100-piece Christmas assortment at no extra charge.

☐ 1 Year $1 ☐ 3 Years $2.50 ☐ 4 Years $3

Friend's name _____
(Please print)
St. or R.D. No. _____
Post Office _____ State _____
Your name for gift card _____
Your address _____

American Agriculturist
10 No. Cherry St.
Poughkeepsie, N. Y.

EXTEND MY SUBSCRIPTION

Yes, I want the Christmas assortment mailed to me at no extra charge. Enclosed is $—— for the term I've checked below.

☐ 1 Year $1 ☐ 3 Years $2.50 ☐ 4 Years $3

(The longer the term the more you save)

Name _____
(Please print)
St. or R.D. No. _____
Post Office _____ State _____

☐ New ☐ Renewal

AMERICAN AGRICULTURIST
10 No. Cherry St. Poughkeepsie, N. Y.



Mr. and Mrs. George Roy of Burlington Flats, New York, know that farming is a way of life and happiness as well as a way of living. So they keep their surroundings beautiful. I am always saddened by the sight of house and farm yards littered with trash and unstored equipment.

A Letter to My Friends

THIS is a very personal letter to all of you who read this page.

I am worried. I have been worried for a long time over the kind of a country that you and I are leaving to our children and to our grandchildren.

Now, I do not believe in always glorifying and longing for the good old days. Our ancestors had many problems and troubles, and the good old days were often bad old days. Besides, we can't turn the clock back—and we don't want to. But we can learn from the past, and it is true that our fathers had something precious that we are rapidly losing. They had the **liberty** to carve their own destiny and make their own lives so long as they did not interfere with the rights and lives of others.

As a farm boy, if I wanted to hoe or dig potatoes for a neighbor when I was twelve years old, it was nobody's business except that of my parents and me. One of the worst laws on the statute books is the one preventing boys and girls from working. Work, when I was young, was my salvation, as it was for millions of other young people. We have no right to deprive them of that privilege.

To be sure I did not get high wages then, but the dollar was worth more than twice what it's worth now—and the government didn't take one-quarter or more of it for income taxes. There were taxes, of course, but it didn't take one-quarter of the worker's time, as it does now, to pay them.

There was no Big Government, no red tape, and no overbearing government representative or inspector telling everyone **what** to do and **how** to do it.

But why go on? I could fill this entire paper—and so could you—with a list of the liberties and freedoms that we have lost to government in my time. And those losses are increasing every day of our lives, with the result that if they are not curbed our children and grandchildren will be living in a country much worse than the Old World from which our ancestors escaped to find freedom in the New World.

Now please don't shrug your shoulders and say, "So what?" or ask, "What can **I** do about it?"

There **are** things which we as citizens can do, and for which we have a personal responsibility to ourselves and to our descendants.

Government begins at home! We can take a more active interest in the caucuses and primaries of our party. Primaries are more important often than elections, because nominations often mean elections. Let your voice be heard in public hearings.

We can **vote** in every election. If you were denied the privilege of voting, you would go underground to try to get it back, but then it would be too late.

You can attend and take part in school meetings and in parent-teacher meetings. I have no use for those who whine and complain about the schools if they don't know what they are talking about because they have not attended a school meeting or been in a schoolroom since they went to school.

When you have finally elected a local, state, or national representative, you can **keep him informed** as to your wishes; the minority and pressure groups do. When your representative does not hear from you he thinks you are satisfied and listens to the minority, believing that they are speaking for all the rest of us.

Last and most important of all, all of us can **stop asking government to do the things we should do for ourselves.** Every time we do, we trade some of our freedom, something far more important than anything we can get in return.

OLD APPLES AGAIN

I HAVE been interested in and pleased with the large number of letters I have received about old apples.

I am indebted to my friend, Mr. Robert Schallenberg of Westernville, New York, for some delicious Red Astrachans which revived memories of eating apples when as a boy I went to the field after a load of oats.

Mr. Willard Bates of Stevensville, Pa. sent me a box of Chenango Strawberry apples. They were just as good as so many of you have described in your letters.

In addition to the Chenango Strawberry which is mentioned several times in the letters there were many others, some of which I have known, but many that I had never heard of.

The following list is by no means complete: Patterson's Sweet, Smoke House, Black Gilly-flower, Black Twig, Maiden Blush, Grimes Golden, Republican, Russet, Pippin. Red Astrachan, Wolf River, Northern Sweet, Harvest Sweet, Eastman's Sweet, (I would certainly like to see one of those), Turnalane, Cat Apple, Sheep Nose, Bell Flower, and dozens of others.

Mrs. Janice Lanoue of Monterey, Massachusetts, writes that the Converse Nursery Company at Amherst, New Hampshire, has a catalog of many of the old varieties which you may be interested in securing.

Unfortunately, most of the old apples are either poor keepers or poor bearers so that it doesn't pay to raise them now for commercial purposes.

WHAT ARE THEY WAITING FOR?

THE attitude of the political leaders in New York State in refusing to raise the legal drinking age limit from 18 to 21 is hard to understand. The bordering states have raised this limit to 21, and have pleaded time and again with the New York State leaders to do the same.

In Trenton, New Jersey, the Republican State Committee has asked (without avail) its New York counterpart to join in the fight to raise the drinking age. But instead of taking direct action, the New York State government has been holding hearings — where you can be sure the liquor interests and other selfish, noisy minorities and publicity seekers have made themselves heard. Arguments made by these minorities against raising the limit to 21 are absurd.

For example, it is claimed that such a law can't be enforced. If it can't be enforced for 21, how can it be for 18? One might just as well say that the traffic laws—any law—all laws—can't be enforced because there are some violations.

It's time that the politicians woke up to the fact that the decent people of New York State **are for this law.** With few exceptions, they include parents, teachers, all the large state-wide farm organizations, and the churches. To whom are your political leaders listening? What are they waiting for? Let's find out!

Write to your state senator, to your assemblyman, and to the Governor.

BATTEN DOWN FOR WINTER

THERE'S a sense of satisfaction for the farmer who goes into the winter with haymows and silos filled with good roughage, and for the farm wife who still prides herself on cellar shelves filled with long rows of canned fruits and vegetables.

That sense of achievement can be greatly increased if everything outdoors around the farmstead is well battened down for winter, just as a good shipmaster prepares his ship for an approaching storm.

How about your farm machinery, in which you have invested many thousands of dollars? Is it under cover?

How about some of those minor repairs around both the house and barn that you just didn't get around to during the summer because you were so busy with things that had to be done?

Last, but not least, how about the trash and litter around the house and barn that you have to look at all winter and maybe stumble over?

As I ride the farm country, I am constantly saddened by the unsightliness around many rural homes. But I only see it once in a while. If your place is that way, you and your family have to look at it all the time.

EASTMAN'S CHESTNUT

MR. Irish Potato and Miss Sweet Potato got married. In due time, they had a little girl potato and they called her Idaho. She grew up and wanted to get married to Lowell Thomas, but Papa Irish Potato and Mama Sweet Potato said "No!"

"We're **high class** potatoes," they said, "and you can't marry Lowell Thomas because he's just a common-tater!"





Entrepreneur

FARMING is big business. Complicated too. Time was when a man got himself a piece of ground, maybe a team, some livestock and a plow. Then he coaxed a living out of that ground by the sweat of his brow, pretty much single-handed. Not any more. Today a man has to be a combination architect, accountant, engineer, botanist, meteorologist, mechanic, and assorted other things. Has to, that is, if he wants to run a successful farm.

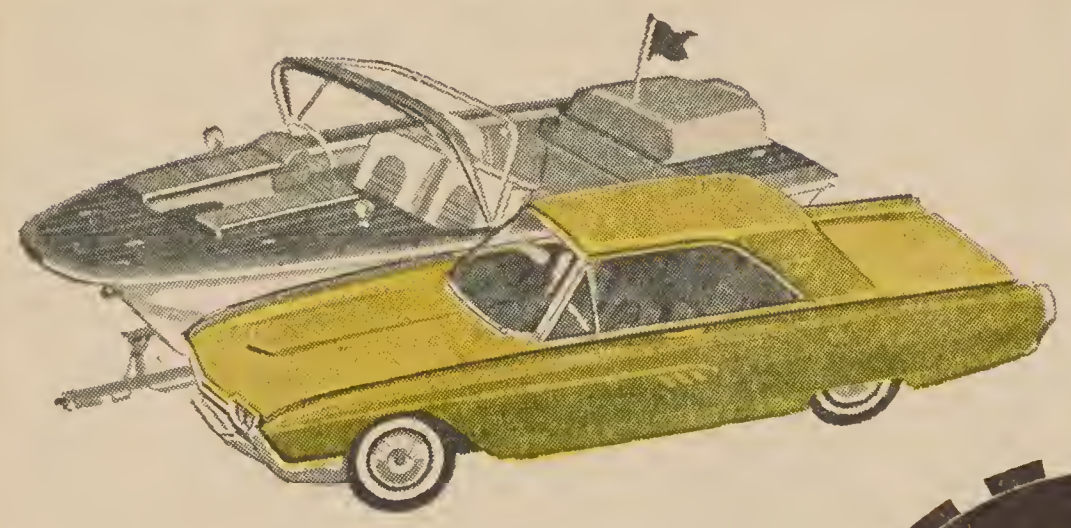
Some things haven't changed though. Farmers haven't. They are the same sturdy self-reliant individualists who parked their plows while they finished the scrap that got this country started.

Individualists. That's the word. Farmers still, thank heaven, think for themselves. And think pretty straight too. Probably it does something to a man when he takes upon himself the task of improving a piece of Creation . . . of working the land God put there 'til it produces what God meant it to. Probably it helps him get things in perspective . . . helps him to see through the conflicting details to the fundamental truth of a thing.

America needs its farmers. Needs them to feed its ever increasing millions. But of equal importance, needs their thoughtful individuality. In these days of mass producing, mass selling, mass buying and even mass educating, America would do well to consider and imitate the thoughtful independence of its farmers.

The North American Companies salute the farmers of America. We salute *American Agriculturist* and enthusiastically join this excellent publication in paying tribute to the qualities that have made America great — freedom and enterprise. The American farmer is an inspiring example to this confused and troubled world that seeks too frantically for easy solutions to its appalling problems and too often seems willing to sacrifice basic values for momentary and illusory advantages.

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
THE NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS

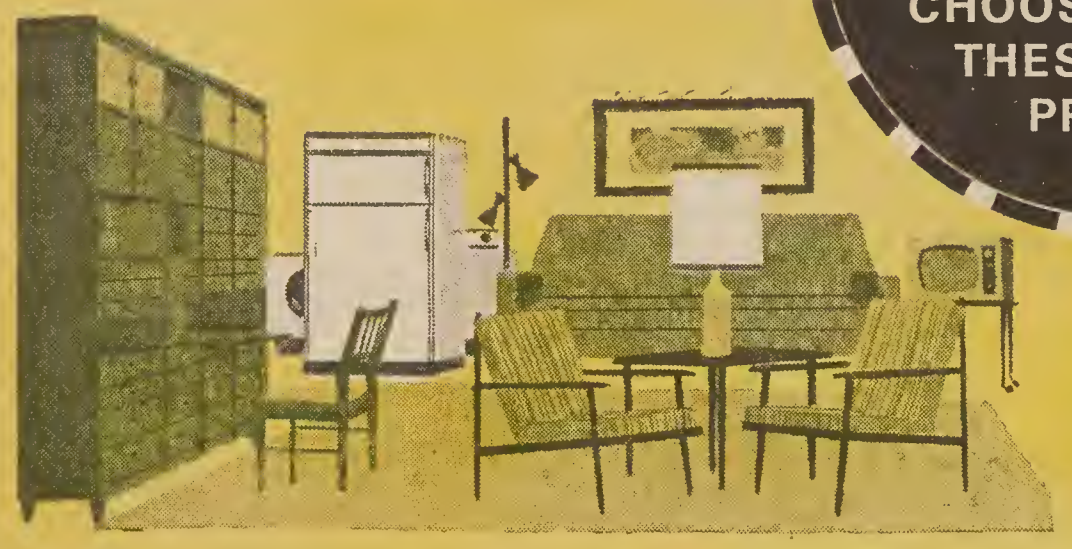


A 1963 Thunderbird... plus a Scott boat, outboard motor and trailer.

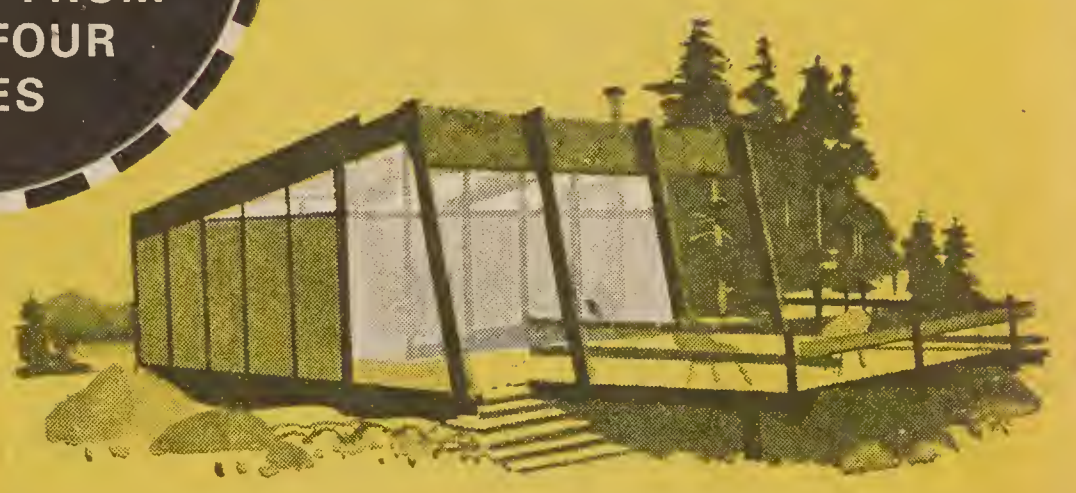


A 14-day hunting trip anywhere on the North American continent, completely outfitted with tent, rifles, and camping gear... plus a new 1963 Falcon station wagon to boot.

1ST PLACE WINNER CHOOSES FROM THESE FOUR PRIZES



$10,000 worth of furniture (by Baumritter), enough to refurnish your entire home... including all new Westinghouse appliances.



A summer home constructed of Douglas Fir Plywood and built on your own lot anywhere in the (48) states. Your vacation paradise to enjoy for the rest of your life.

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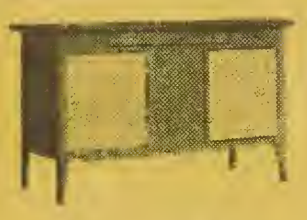
McCULLOCH $50,000 PICK-A-PRIZE SWEEPSTAKES



Second Prize:
1963 Ford Falcon
Air-Conditioned Sedan



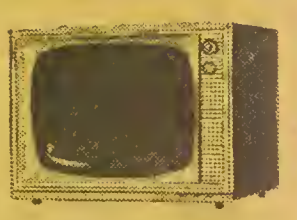
2 Third Prizes:
Admiral Color TV Sets



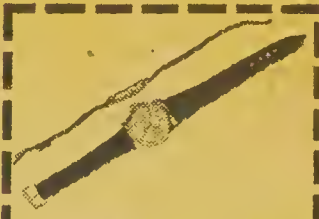
4 Fourth Prizes:
GE Stereo Consoles



17 Fifth Prizes:
McCulloch Karts and Engines



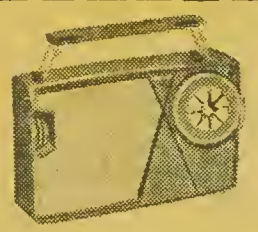
4 Sixth Prizes:
Admiral Portable TV Sets



125 Seventh Prizes:
17-Jewel Wittnauer
Ladies' or Men's
Watches



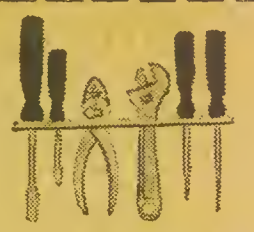
125 Eighth Prizes:
Kodak
8mm Cameras



125 Ninth Prizes:
General Electric
Transistor Radios



300 Tenth Prizes:
Zebco Matched
Rod 'N Reel Sets



500 Eleventh Prizes:
Consolidated
Household Tool Kits
(a must for every family)

Over 1000 Prizes, Over 1000 Winners!

NOTHING TO BUY, NOTHING TO WRITE! GET ENTRY BLANK AT YOUR McCULLOCH CHAIN SAW DEALER NOW!

Void where prohibited by law. *Sweepstakes closes January 15, 1963.*

McCULLOCH CHAIN SAWS

Founded 1842

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

DECEMBER 1962



FEED FOR TOP PROFITS

By STAN GAUNT
Extension Dairyman,
University of
Massachusetts

YOU DON'T have to expand your herd, build a new barn, or buy more land and equipment to increase your income—that is, not unless you are one of the few dairymen who are already getting the maximum profit from the cows you already have.

Many dairymen are spending money for more equipment and more building space to take care of more cows, only to feed them far under their ability to produce milk. Recent research and farmer experience strongly indicate that nearly half of our cows could produce much more milk—at least 1,000 to 2,000 pounds more! **It's a case of not feeding enough nutrients at the right time to the right cows.**

Recently, one research worker reported on a dairyman who tried a high grain feeding program on four good cows, but not his very best. Three started their lactation by milking more than 100 pounds a day; one made better than 26,000 pounds in her lactation. This dairyman never before had a cow hit 100 pounds of milk a day.

All cows won't respond, so don't go "hog wild" feeding lots of grain to the whole herd throughout the lactation. Challenge your cows individually! Start "lead" feeding at least two weeks **before** calving, feeding at least one pound of grain per 100 pounds of bodyweight —go to 1½ pounds for very high producers. Continue at the same rate through calving and for about three days, then step up grain rapidly. Keep on increasing (or "challenging" them) so long as the extra milk pays for the extra grain.

On a practical basis, for most cows increase grain two pounds per day until milk production — or the cows' appetites — reach their peak. Continue at this rate until the cow declines normally in milk production. Then follow the regular grain table recommendations; decreasing the grain with the decreases in milk production.

Don't delay getting them on full feed after calving. Tests show that the rate of milk response drops an average of seven percent for each week that you delay high grain feeding after the week of freshening.

As a guide in determining how much grain to feed at freshening, last year's production can be used as a starter. However, if last year you were not "lead" and "challenge" feeding, you will need to exceed those amounts; this will be especially true of second calf heifers. In both cases, the cows' potential has not been realized.

For instance, several experiment stations and farmer experience have demonstrated that high grain feeding to high producers pays. Figures compiled at the University of Connecticut show the profitability of high feed intake.

A similar relationship has been found in research work done at Michigan State and many other colleges of agriculture.

Many a herd could **step up profit considerably** if dairymen **would feed their high producers better.** Combined with limited grain feeding, most hay and silage just isn't good enough to provide sufficient energy and protein, and a cow's rumen cannot digest enough roughage to meet the needs of high producers, so cows **drop in production** to the **level of feeding.** Too many cows are producing far below their potential because of insufficient energy from rations based on roughage.

Often we hear it said that heavy grain feeding doesn't pay. This is true in cases where the whole herd is fed at heavy levels—regardless

(Continued on Page 20)

IN THIS ISSUE—Farm Pesticide Facts, Page 3 . . . American Agriculturist Foundation Winners, 6 . . . Tax Management, 8 . . . Gayway Farm Notes, 10 . . . Christmas Tree Specialist, 12 . . . Mothballing Engines, 17 . . . Price and Milk Supply, 18.



Silage Corn—20 Tons/Acre!

Bob Branton, dairyman of Batavia, N.Y., grows a lot of corn—120 acres. This fall he harvested 20 tons of silage to the acre.

Mr. Branton uses the GLF Complete Crop Needs Package.

STARTS WITH A SOIL TEST

GLF takes Mr. Branton's soil test, and the Branton fields are limed and fertilized according to soil test recommendations.

Last spring Mr. Branton planted Cornell M3 seed corn. He put on between 400 and 500 lbs/acre of GLF 10-10-10, and side dressed with 50 lbs/acre of liquid nitrogen.

HAY

The Branton milking herd numbers 125 cows, so he must get a lot of hay too. "I had been top dressing my alfalfa with 300 lbs. per acre of GLF 0-20-20, but this past year I used 400 lbs. It made quite a difference in my hay yields."

A dairyman's cheapest source of feed can be his hay and corn fields. Call your GLF. Have a crop representative explain the GLF complete crop package—lime, seed, fertilizer and pesticides. See how it can benefit you. Get the most feeding value from your hay and corn fields next year.

Cooperative GLF Exchange, Inc.,
Ithaca, N.Y.

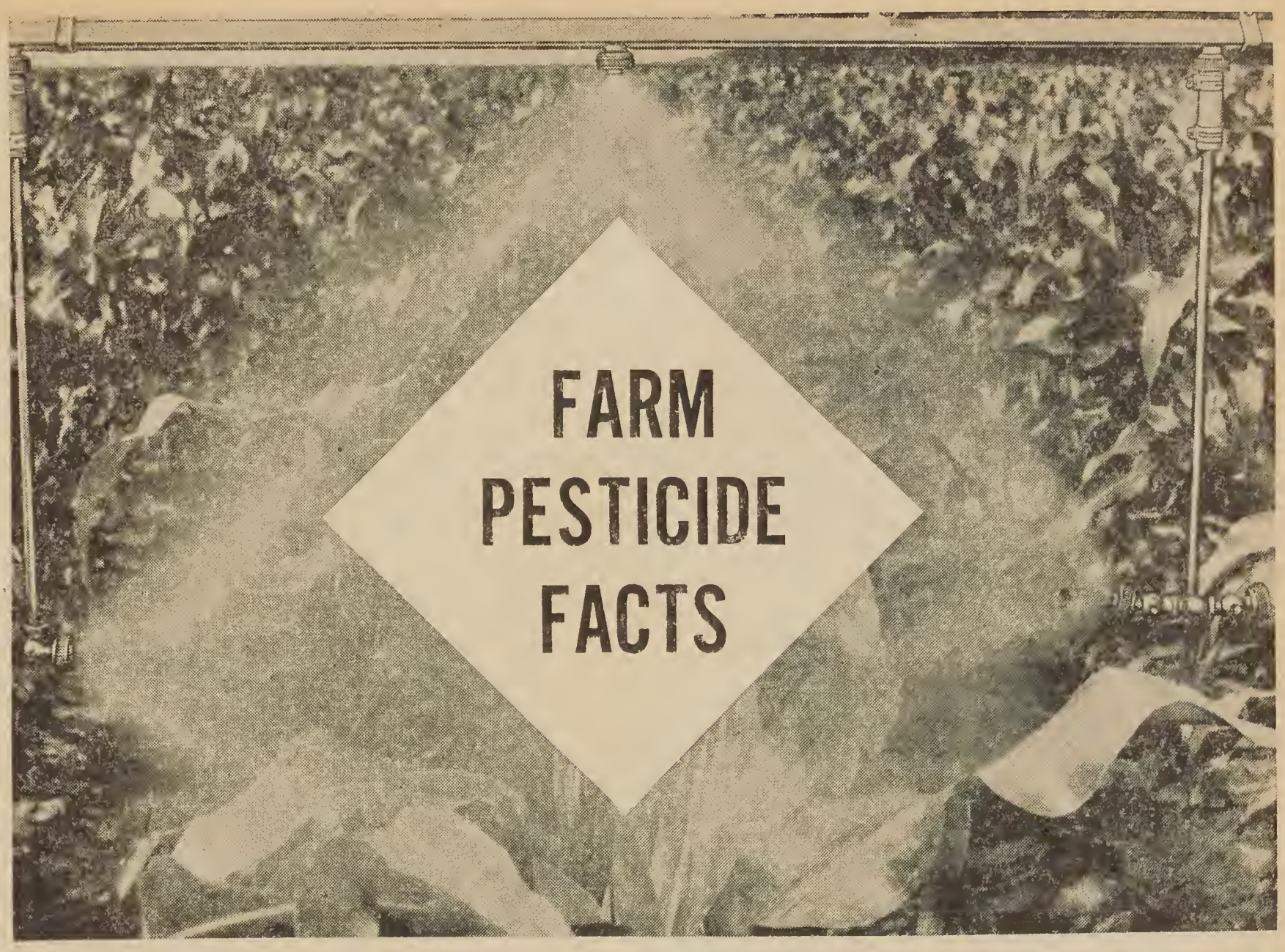
GLF COMPLETE CROP SERVICE

FARMERS - -

You can use this information to defend your use of chemicals.

NON-FARMERS - -

Here are facts about the use of chemicals in farming.



THE RECENT publication of the book "Silent Spring" has brought into the limelight once more the demands of a vocal minority that the use of chemicals on the farm be severely limited, or even discontinued.

In order to bring some light to accompany the heat of the situation, specialists at the New York State College of Agriculture in Ithaca, and the New York State Agricultural Experiment Station at Geneva, have joined in releasing a statement on the subject. Portions of this statement follow:

Do we really need pesticides?

This is hardly a debatable question. We not only need them; we are highly dependent on them, especially in the production of food and fiber crops. Without pesticides we would eat very poorly indeed in terms of both quality and quantity.

Millions of people are alive today because of the use of DDT and other modern pesticides in suppressing insect-transmitted diseases of man such as malaria, yellow fever, and typhus. Witness, too, how we are relying on pesticides to stamp out the recent outbreak of encephalitis in Florida. But if we use these materials, we cannot hope to be free from all possible objectionable consequences of their use. One such problem, for example, is the traces of pesticides that unavoidably may persist in or on some of our food crops beyond harvest.

Do these traces of pesticides constitute a health hazard to consumers?

According to the best scientific evidence available, the traces that are allowed—and these are fixed by the Food and Drug Administration—constitute no known hazard. This question of allowable levels involves the "tolerance" concept.

Its principle can be illustrated with table salt. As used in our foods, salt is employed at a safe or tolerable amount—for most individuals. At higher levels, however, it becomes a "poison." This was tragically illustrated in a Binghamton, N. Y. hospital recently when salt was accidentally substituted for sugar in the formula fed to newborn babies. All chemicals have their safe and toxic levels. For "toxic" materials, such as certain pesticides, these levels are simply lower than for table salt.

Before any pesticide can be sold it must undergo extensive feeding tests on laboratory animals. These tests may be continued for two years or longer, and involve several generations and thousands of laboratory animals. The FDA sets a tolerance—zero or otherwise—on the basis of this information.

Most laymen will still ask why we allow even traces. Fortunately, much of our food is free from them. But what is the meaning of "free" when we now have instruments capable of detecting up to 1 part of pesticide in 1 billion parts of product?

Short of not using the material at all, common sense calls for setting the allowable level low enough to meet all safety requirements, yet not so low as to prevent the use of a needed product. This is exactly what the FDA attempts to do.

Do pesticides pose a serious threat to wildlife?

As a preface to this section, two facts should be appreciated: (1) the harm man has done to wildlife in felling forests, tilling fields, draining wet places, polluting waters, and through urbanization, is of much greater consequence collectively than are the relatively small and temporary losses that have occurred from pesticide use; (2) of the total land (and water) area of the U. S. A., more than 95 percent receives no pesticides in a typical year; in the wildlands (about 75 percent of the total area) the figure is 99 percent.

As currently used in routine operations to control mosquitoes and pests of our farms and forests, the hazards to wildlife are generally considered to be small.

Are pesticides upsetting the balance of nature?

This question implies that modern man is living under conditions of natural balance in relation to other forms of life. This is far from true regardless of where he lives, farms, or carries out his business enterprises. Man's progress, in fact, is largely measured by the degree to which he has been able to unbalance nature—to his advantage.

It is often suggested that we use nature's tools to keep pests in check. Nature, we find, is usually much too slow and inefficient in control to meet man's standards. Anyone who has seen the eastern tent caterpillar totally defoliate wild cherry trees for two consecutive years before parasites, predators, and disease begin to get the upper hand will understand this.

Scientists are exploring the possibilities of using biological methods in control. But experience to date shows that we cannot rely on them alone, particularly in intensive agricultural operations. To produce food at present high volume and quality we are dependent on chemical control measures primarily.

How much are pesticides misused?

To some extent, of course. But such misuse is apparently no higher than occurs in any other similar human endeavors. A different logic seems to apply where misuse of pesticides is involved. This is the tendency to fix blame on the pesticide rather than on the person who misused it. When someone runs into a tree with an automobile, what or whom do we blame—automobiles in general, or the man who misused that particular one?

The number of farmers who willfully apply treatments nearer harvest than the law allows is quite small. Even if farmers were not law-abiding as a group—and they are—pesticides are expensive and farmers tend to use them only when needed.

There is no question that farmers, for their personal safety, should handle and use pesticides with respect. The pesticide safety record of the farm is remarkably high.

Should "less toxic" pesticides be used?

No simple answer can be given to this question, as can be illustrated with two pesticides, parathion and rotenone. Parathion is considered, rightly, to be highly toxic to both insects and man; rotenone, on the other hand, is rated relatively "safe."

The danger in parathion use is to the farmer who applies the material, not to the consumer who eats parathion-treated crops—this chemical disappears rapidly from spray deposits. It thus may be safer, from the standpoint of the consumer, than some less toxic pesticide that lays down deposits highly resistant to weathering.

Rotenone is relative nontoxic to humans, but it is highly toxic to fish. In fact, it is commonly used to exterminate unwanted species of fish from certain ponds and streams before restocking with wanted species.

It has been suggested in the interests of safety that plant-derived pesticides such as rotenone, pyrethrum, and ryania be used in place of DDT and the other synthetic organic pesticides. Although these well-known botanicals have found limited use over the years, experience has demonstrated that they are too inefficient generally to cope with the total pest problem.

Are there satisfactory alternatives to chemicals or pest control?

As of today, no. This is not intended to belittle nonchemical control principles. Some, such as the breeding of disease-resistant crop varieties, have proved to be highly successful solutions to certain problems. Even in such instances, however, chemical treatments may be needed to protect the crop from diseases and insects other than the one to which the plant is resistant.

The final standard that all control

(Continued on Page 21)

Editorials



By Gordon Conklin

PATH TO PEACE

I AM NOT a believer in peace at any price. History tells us, and experience proves, that even reasonable persons must sometimes meet injustice with violence. The Minutemen were not irresponsible hotheads, just men pushed beyond the limits of endurance by those they believed to be unjust.

Yet, the present arms race between Russia and our nation is frightening. It reminds me a bit of two small boys stacking snowballs behind the walls of their facing "forts," just waiting for an excuse to start the scrap. Somehow, it never seems likely they will waste all that ammunition by leaving it unused.

Faced by the prospect of fiery holocaust and the certainty of nuclear test series fallout, what constructive proposal can be made? Most of us agree we don't want Uncle Sam to suddenly unstrap the Colt .45 from his hip; we see a bear all too clearly prowling around the global camp. Umpteen disarmament conferences between the two countries have only succeeded in running up expense accounts and raising the temperature of Europe two degrees from all the hot air.

Everyone has his own remedy for a cold; here's mine for the "cold war":

1. Appropriate $1 billion (a small portion of the defense budget) for a project offering free trips for Americans to Russia and for Russians to the United States.

2. Require that all participants reside for 60 days in the homes of "typical" families in the nations visited. Host families would be reimbursed for meals and lodging.

3. Stipulate that only ⅓ of the Russian travelers could be members of the Communist Party.

There would be a host of details to work out —interpreters needed, money exchange, etc. But of this I am sure—if Americans and Russians could rub elbows on a massive scale and come to know each other better, only good could result. Our nation is a melting pot of races and nationalities, living in a reasonable degree of harmony in spite of widely different national heritages, religions, and beliefs.

Even if the rulers in The Kremlin said "nyet" to the proposal, it would be a face-losing proposition for them to refuse and thereby admit an unwillingness to expose their people to an overture of friendship.

It is hard to hate or fear a family with whom you have broken bread, with whom you have attended a county fair or danced in the streets, with whom you have watched the peace of eventide. Some of the brittle barriers erected by man to protect his ego then begin to erode, and we suddenly perceive our common humanity, our shared fears and hopes, our mutual need for inner wholeness.

AMERICAN AGRICULTURIST

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GOOD IDEA!

WHEN I REACHED for the box of corn flakes one morning recently I noticed that one whole side of the box was covered with "Facts You Should Know About Food." There followed information that each farm worker produces 80 percent more food than he did in 1947-49, that the average person in this country works only 38 hours today to buy a month's supply of food—in contrast to 59 hours in '47-'49. It also pointed out that we spend 20 percent of our income in the United States for food, whereas Great Britain spends 30 percent and Russia 50 percent. All this added up to the conclusion boldly printed on the side of the cereal box, "FOOD IS A BARGAIN."

The Kellogg Company is to be congratulated for its efforts to promote better understanding of agriculture and businesses associated with it. The untold story of our time is the fantastic productivity of American agriculture, and the abundance which it brings to every citizen in the land. Would that other companies would follow suit!

PASS THE CHOLESTEROL

WHEN IT COMES to food, do you have fallout phobia? Are you anti-antibiotic? Do you have that newly-created ailment called "cholesterol concern?" Are you sick and tired of reading claim and counterclaim about what foods may cause heart trouble, falling hair, failing virility, and genetic mutations?

The American Medical Association recently issued a statement, saying in part, "Although some day science may come up with a diet that can prevent heart disease, such a development appears to be well in the future. The anti-fat, anti-cholesterol fad is not just foolish and futile, however. It also carries some risk.

"The current concern about diet reflects a healthy interest on the part of the public. This interest should be directed away from hopeless pursuits to a worthwhile goal that can be attained by most individuals—maintaining normal weight."

The moral—just don't be stampeded by everyone claiming to be a prophet who comes down the pike shouting a new and spectacular health gospel. As for me, I've resolved to continue chewing on what I enjoy eating and what my tummy says agrees with me. This business of spending a lifetime worrying about when you may die is for the birds—and even they aren't that dumb.

Holiday Greetings

ALL of us at American Agriculturist join in wishing you a joyful holiday season and a new year that will be bright with promise and new dimensions of living.

BLUEBLOODS IN EVERY SPECIES

REFERRING TO some folks from New England, a well-known quotation goes, "The Cabots speak only to Lowells, and the Lowells speak only to God."

This business of social status, or "peck order" as a poultryman would call it, seems to be even more widespread than we once imagined. A recent study of hens shows that removing the comb helps to prevent the creation of a social order because combs are a means of identification. By golly, I suddenly see why Milady is so conscious of clothes, especially hats!

Researchers tell us that when a flock is culled and the bottom of the peck order removed, a new group is immediately pushed into the bottom level and more culls appear.

It seems that the "dumb" animals on our farm share with us a desire to feel superior. Of all the longings that fill the human heart one of the deepest is to feel important — to believe that we "amount to something." Our ability to touch this longing with sincere praise and encouragement unlocks the door of the human heart.

MARKETING MEMO

TO: Whom It May Concern
FROM: A Banker
RE: An Economic "Law"

Lately, I've been hearing everywhere that, "A lower price stimulates **more** production, rather than discouraging production." After hearing this for the umpteenth time, a brilliant idea came to me in regard to the savings accounts in my bank.

Why not, I argued, lower the "price" the bank pays for money by dropping the interest rate paid on savings accounts? It's obvious that, if a person wanted to maintain his income, he would just invest more money at a lower "price" and end up with the same income. Thus, the people who had $1,000 in our bank, receiving 3½ percent interest, earned $35 a year on it. But if we lowered the rate to 3 percent, they would then put in $1,166.67 in order to receive the same income. Eureka!

But now comes my problem. We lowered the savings account interest rate, or "price," on money put in our bank—and our depositors took their money out and sent it to the California savings banks, or someplace. How in the world can I get through to these folks the fact that our economic "laws" have changed? Maybe they're just out of step with the times.

My bank sincerely invites anyone who understands the modern world to invest his funds with us—the interest rate is 3 percent.

AA's Farm Dollar Guide

SECRETARY FREEMAN INDICATES CLEARLY that high dairy supports will not be continued without controls. Dairymen can well study supply management proposals and decide (1) Do I want supports plus controls? (2) If controls come, what kind of control will hurt me least?

Suggested have been (1) nationwide allotments; (2) voluntary control with government checks for reduced production; (3) a two-price system by milk marketing areas whereby a dairyman would get a fluid allotment but could produce as much extra milk as he wished at the manufactured price.

FOOD AND DRUG ADMINISTRATION AGENCY HAS SEIZED AND DESTROYED over 170 tons of potatoes in the Western states because of illegal chemical residues. Cause was misuse of pre-emergence weed spray after crop was up. This emphasizes importance of following directions closely when using chemicals.

IF YOU ARE SELLING YOUR FARM, take your time. It will likely be one of your biggest business deals. Always get a lawyer to advise you. Remember that you may profit, taxwise, by accepting payment in installments over a period of some years.

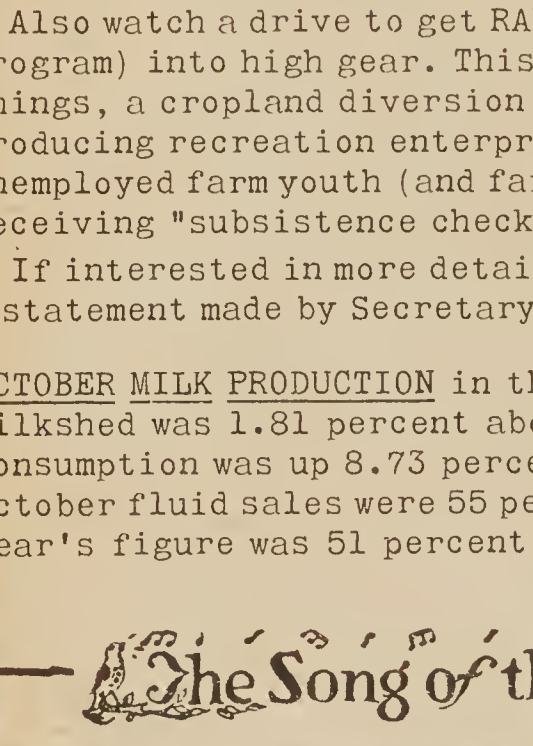
ANALYSTS PREDICT THAT TREND OF SUPPORT PRICES FOR FARM PRODUCTS will be down, but that government efforts to boost prices of farm products will not be lessened. Method will be changed to DIRECT PAYMENTS TO FARMERS, something that is already being used to some extent, for example, government checks for reducing acreages below allotments.

Also watch a drive to get RAD (Rural Area Development Program) into high gear. This includes, among other things, a cropland diversion program; loans for income-producing recreation enterprises on farms; training unemployed farm youth (and farmers) for other jobs while receiving "subsistence checks."

If interested in more details, write for USDA 3848-62, a statement made by Secretary Freeman on November 2, 1962.

OCTOBER MILK PRODUCTION in the New York-New Jersey milkshed was 1.81 percent above October 1961. Fluid consumption was up 8.73 percent, an encouraging trend. October fluid sales were 55 percent of the pool, last year's figure was 51 percent.

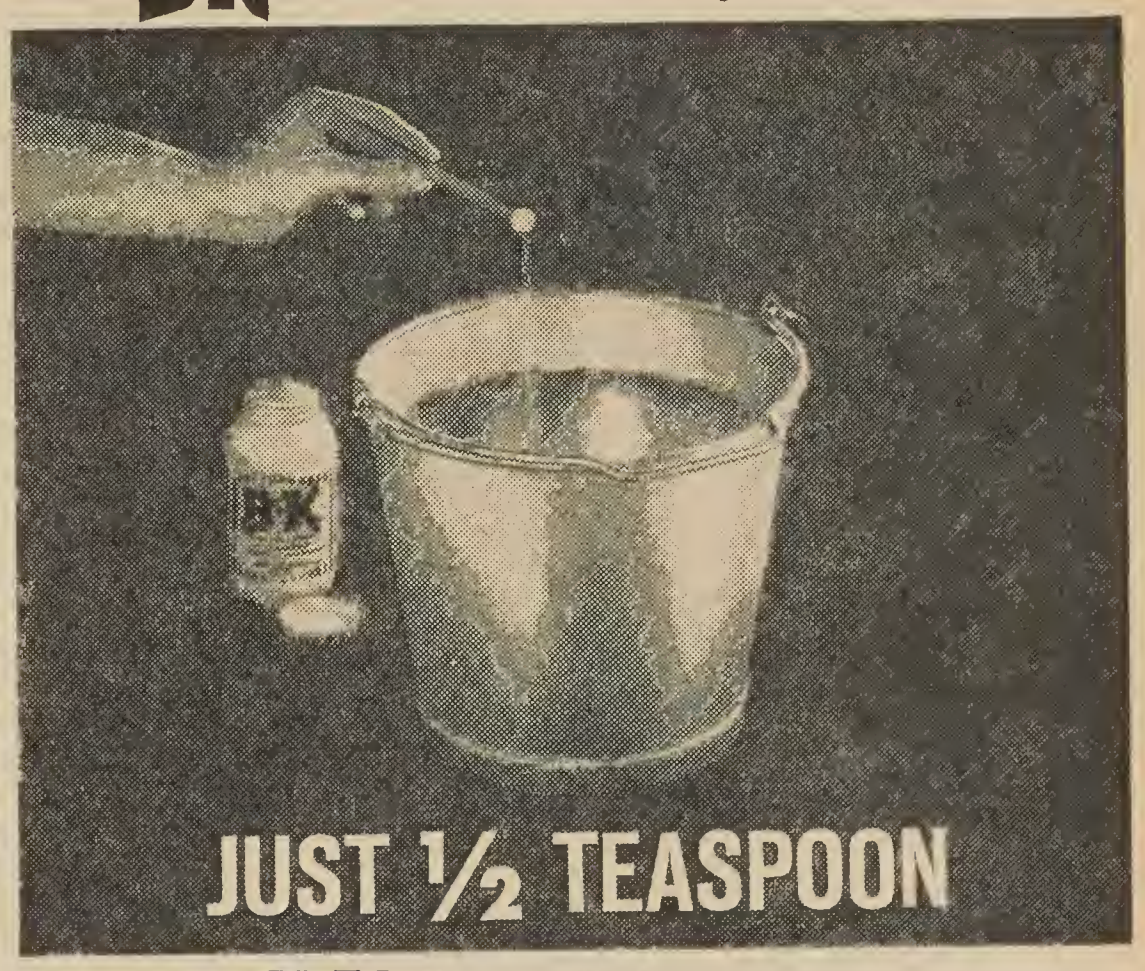
The Song of the Lazy Farmer



BY FAR the greatest of the erimcs committed in these modern times is the coneoetion some folks try to pass off as a punkin pie. I think that it's a crying shame the way most eooks have helped defame the greatest dish devised by man. The loafers open up a ean and out of it they dare to seoop some evil-looking, tasteless goop; they plop it in a soggy erust and then before it's served they pile whipped cream on two inehcs thiek so that their vietims won't get siek when they foree down an extra bite or two just so they'll be polite.

Thank goodness, I don't get that swill 'cause good old Jane Mirandy still knows how to make the real thing and loves to do it, too, by jing. She doesn't have a ean in sight when she starts out to do it right; I bring a punkin from the field and then, somehow, she makes it yield a tantalizing golden meat, the taste of whieh just ean't be beat, especially when it's mixed up good with lots of spices like it should, then baked just right in flaky crust, I eat so mueh I almost bust. When it comes time for me to die, I hope I'm filled with punkin pie.

B·K 50th Anniversary News...



of B·K® POWDER makes an effective sanitizing solution!

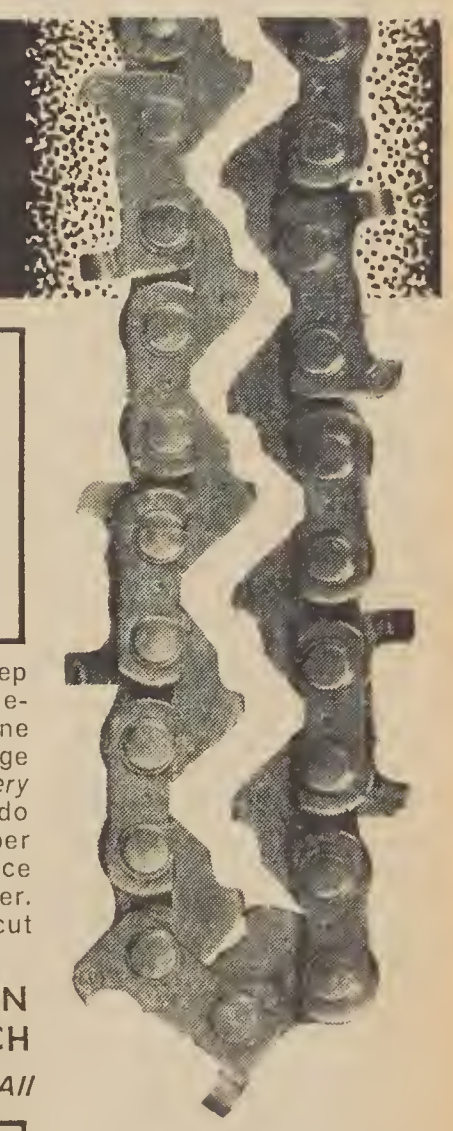
Sanitizing can be economical! Only ½ teaspoon of B-K POWDER in 2 gallons of water makes a 100 ppm available chlorine sanitizing solution. With the economical 1¾-lb. container you can make over 1,000 gals. of 100 ppm solution—for only *one cent* per 7.4 gallons. Or over 500 gals. of 200 ppm solution—for only *one cent* per 3.7 gallons!

Improved B-K POWDER—now in an unbreakable plastic container that means more safety in the milkhouse. A free measuring spoon is in every container. Order now from your Pennsalt distributor, or write direct.

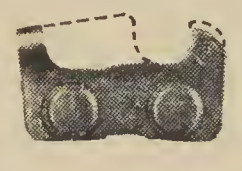
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OREGON® Chipper Chain Cuts Double National Average In Frozen Cordwood



OREGON Saw Chain Case History No. 5



Remaining cutter top plate is still efficient after OREGON Chipper Chain produced 450 cords of frozen timber. Quality manufacture and correct maintenance combined to give this chain outstanding performance record.

FULL DETAILS ON REQUEST

Using the OREGON Chipper chain shown in deep snow and at −10° to −50° temperatures, a Minnesota timber worker cut 450 cords of frozen jackpine and poplar . . . better than twice the national average for pulp production per chain. We don't say *every* OREGON chain will make such a record. We do know *this* OREGON chain did . . . that with proper use and maintenance such superior performance is *typical*, on all makes of saws, in all kinds of timber. Ask your dealer for OREGON chain. It will cut faster, last longer, make more money for you.

NEW OREGON MICRO-BIT® CHAIN NOW AVAILABLE IN .404" PITCH

OREGON Saw Chain Outsells, Outcuts Them All

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American Agriculturist Salutes Its Foundation Winners

By ISA LIDDELL

AMERICAN AGRICULTURIST has always backed all phases of education, so it wasn't surprising that someone should come up with the idea of an American Agriculturist Foundation Award to vocational agriculture students in the high schools of the Northeast. The idea, started in 1945, went over big with both teachers and students. Then the girls felt left out, so in 1947 the Award was extended to cover members of the homemaking courses. Our winners now number thousands, many of them active adult leaders in the great profession of agriculture.

All that the Foundation directors ask in connection with the Award is that each teacher send in a report on why the particular boy or girl was chosen, and that we have letters from the young people themselves telling us about their work and plans.

The American Agriculturist Foundation Award was not intended to go necessarily to students with the highest scholastic ability—all honor to them! It was to be given in recognition of all-around qualities—and one thought was that at times the recognition would go to a boy or girl who had made the most advancement against handicaps of one kind or another. We feel that the teachers and principals have made excellent decisions over the years, and that there is no finer group of trustworthy and dependable boys and girls—men and women.

Each year we have wished for more space in AMERICAN AGRICULTURIST to describe the achievements of these fine young Americans. Since that is impossible (it would take the whole book) the examples cited below will have to speak for the whole, together with the listing of the schools who reported their winners. Let's begin with the states alphabetically:

Vocational Agriculture

Starting with HOUSATONIC VALLEY (Connecticut) REGIONAL HIGH SCHOOL, G. Tracy Atwood was chosen for the Foundation Award this year. Active in 4-H, Tracy held many offices in the local chapter, and in the Connecticut Association FFA. He has received awards for record keeping, crop growing, and public speaking, is active in Church groups, a member of the National Honor Society, and has taken part in national judging contests for poultry and dairy.

Thomas Young, LIVERMORE FALLS (Maine) HIGH SCHOOL, has been the local FFA rural electrification winner for two years, and last year placed third in the State contest. From knowledge gained in vocational agriculture classes, Tom has made many improvements in his home, including installing a running water system, building bookcases and cabinets, refinishing his own room and rebuilding the kitchen. He plans to attend the Maine Vocational Technical Institute.

NORTH HARFORD (Maryland) HIGH SCHOOL chose William Gent, who, according to his teachers, "has shown outstanding initiative in class and shop activities, as well as in his home farming program." Bill is developing a fine herd of swine that he hopes will number over a hundred by the end of the year.

At FRONTIER REGIONAL SCHOOL, South Deerfield, Massachusetts, Russell Roberts was the choice. Russell owns 30 head of dairy animals, mostly Holsteins, and his net worth in stock, machinery and equipment is described by his teacher, Mr. Clifford Parker, as over $17,000. Russell's father is a lumberman, and Russell operates the home farm.

Twin brothers, Robert and Ronald Mola, were the winners at JAMAICA PLAIN (Massachusetts) HIGH SCHOOL. Both have outstanding scholastic records. Ronald has acquired the skills necessary to operate a commercial greenhouse; Robert has acquired similar success in the landscape field. Mr. Wendler, vocational agriculture teacher, says: "They are two of the best boys I have had contact with in 41 years of vocational agricultural education."

Lester Greenwood operates his own farm, and has assets amounting to approximately $4,500. In order to take the vocational agriculture course at HOPKINTON (New Hampshire) HIGH SCHOOL, he makes a round trip of 60 miles daily.

At CHERRY VALLEY (New York) CENTRAL SCHOOL the Award was given to Floyd Dubben, Jr. Floyd has been receiving his own milk check since he was a sixth grader, and now has 21 purebred Holsteins. From his milk money he has purchased his own tractor, plows, forage chopper, sprayer, corn planter, and is planning on buying more new equipment such as a crimper.

Floyd has kept cash account records on all the farm business, has inventory records for four years; milk records for two years through testing in school. Now he is signing up his herd for official testing.

Alvin Crandall was the recipient at FALCONER (New York) CENTRAL SCHOOL. Among all his other activities, Alvin designed a tractor for his farm operation out of an old Buick car and some truck parts from a junk yard.

In writing of Jim Diamond, Sheldon Stoff, teacher at SCHOHARIE (New York) CENTRAL SCHOOL says: "He has an enviable reputation among farmers, and has no trouble finding summer employment, due to his reputation for reliability, eagerness, and basic agricultural knowledge. His ability at farm mechanics is well known."

Kenneth Canfield, DAMASCUS (Pennsylvania) HIGH SCHOOL, is president of the local FFA chapter, has a 600 bucket maple syrup program, and with the help of two younger brothers and three younger sisters helps his crippled stepfather to run a 500 acre dairy farm with 80 head of cattle.

NEWBURY (Vermont) HIGH SCHOOL chose Sidney J. Bailey. Sidney graduated as salutatorian of his class. He has been a member of the National Honor Society for three years, attended Vermont's Boys State in 1961, received the Sears Roebuck Homestead Improvement Award, and first place State award for farming program record book. Sidney is also a State Farmer.

Homemaking

The records of the girls are no less fine than those of their contemporaries in the vocational agriculture courses. Let's look at some of them:

Patricia Anne Lomitz transferred to WASHINGTON (Connecticut) HIGH SCHOOL for her senior year, and quickly adapted. She was the Betty Crocker Award winner for the school, commentator for the Fashion Show, prominent in athletics, and active on the senior class committees for dances and the Year Book.

Gale Kelly is described as the idol of many of her classmates at JONESPORT (Maine) HIGH SCHOOL because of her good disposition. Gale is active in Church and community activities, a student council member, cheerleader, and candidate for Winter Carnival Queen.

Being one of thirteen children has given Margaret Easton, HOPKINS ACADEMY, Hadley, Massachusetts, plenty of knowledge about feeding, clothing, and bringing up a family. In addition, she has lived and worked with other families in the summer. Margaret is hoping to be able to save enough money in a year or so to put herself through cosmetology school.

Sandra Morrill's parents are enthusiastic AMERICAN AGRICULTURIST subscribers, and Sandra won our Foundation Award at ALTON (New Hampshire) CENTRAL SCHOOL. She was also the winner of the Alton Women's Club Vogue Sewing Contest, and went on to the district judging.

At BAINBRIDGE-GUILFORD (New York) CENTRAL SCHOOL, Dawn Ellen Wakeman was chosen to receive the Award. Miss Corbin, homemaking teacher, says that Dawn Ellen is a very enthusiastic student and does exeellent work. She plans to continue homemaking work at Cobleskill Institute. Like all the other winners, Dawn Ellen is also active in Church, Sunday School and youth groups.

Barbara A. King, MANASQUAN (New Jersey) HIGH SCHOOL, has put her homemaking training to particularly good use. Her father was in an automobile accident and not expected to live. Says Miss Stewart, her teacher: "He recovered slowly in a pleasant atmosphere made possible by Barbara's thoughtfulness in helping her mother to plan a more

(Continued on Page 14)

Achievement Award Winners for 1962

THE FOLLOWING list includes **only the names of the winners reported to us.** Many other schools took part in the project but neglected to report their winners. We are sorry that these names have to be omitted from the listing.

Where two names are listed for one school, the agriculture student is mentioned first.

CONNECTICUT	
Housatonic Valley Regional High	G. Tracy Atwood
Washington High	Patricia Lomitz
MAINE	
Easton High	Gail Cullins
Falmouth High	Julianne Hodgdon
Greenville High	Ellen Chasse
Jonesport High	Gale Kelley
Lawrence High	Leroy G. Lane
Limestone High	James Butler
Livermore Falls High	Thomas Young
Newport High	Robert Brown
Southern High	Virginia Beitzel
Sumner Memorial High	Ellen Sunderland
Waterville Senior High	Sharon Whitehouse
MARYLAND	
Chestertown High	Allan Pinder
North Harford	William Gent
Sudlersville High	Ralph Jackson, Jr.
MASSACHUSETTS	
Bristol County Agricultural	Alan L. Chace
Frontier Regional	Russell Roberts
Hopkins Academy	William West Richard Waskiewicz Margaret Easton
Jamaica Plain High	Robert and Roland Mola
New Salem Academy	Bernard Podbelski Lorraine Wirth
Norfolk County Agricultural	James Berks
Palmer High	Jeanne Brown
NEW HAMPSHIRE	
Alton Central	Sandra Morrill
Hopkinton High	Lester Greenwood
Orford High	Sylvia Carlson
Sanborn Seminary	Lorraine Lanseigne
Walpole High	Sandra Rounds
Weare High	Joseph Perrigo Shaaron Drewry
NEW JERSEY	
Manasquan High	Barbara King
Salem High	Sandra Evans
NEW YORK	
Addison Central	Paul Cisco
Adams Center Central	Esther Brown
Afton Central	Dawn Conklin
Akron Central	Glenn Hersee
Alfred-Almond Central	Dale Champlin
Alice Freeman Palmer Central	Linda Dutcher
Altmar-Parish-Williamstown	Richard Skellington
Andes Central	John Drew
Andover Central	Robert Clarke Ruth Waters
Arcade Central	Gilbert Witt
Arms Academy	Curtis Cromack
Bainbridge Central	Dawn E. Wakeman
Ballston Spa High	Carole Ann Colvin
Barker Central	Mathew Costello
Belfast Central	Sharon Morton
Belleville Central	Alfred Towles, Jr.
Boonville Central	James Sattler
Bridgewater Central	Gloria Orcutt
Brocton Central	Richard Patterson
Cambridge Central	David English
Camden Central	Edmund O'Rourke
Canajoharie Central	Roger Herringshaw
Candor Central	Timothy G. Meddaugh
Canton Central	Linda Ostrander
Cassadaga Valley Central	John Gilbert
Cazenovia Central	Frederick Westfall, Jr. Judy Kolmer
Central Square Central	Rufus A. Maxfield III
Chazy Central	Gail Lewis
Cherry Valley Central	Floyd Dubben, Jr.
East Springfield	Dean Fassett
Clinton Central	Charles Dziegiel Jean Dawes
Cobleskill Central	Ronald Becker
Delaware Academy & Central School	Victor Bellard Katherine Whittaker
Downsville Central	Steve Reed
Andrew S. Draper Central	Louise Stevens
Dryden Central	Richard Beck Sandra Scanlon
Elba Central	Jon R. Burrows
Ellenburg Central	Loraine Nephew
Falconer Central	Alvin Crandall
Fillmore Central	David Myers
Fonda-Fultonville Central	Virginia Miller

(Continued on Page 14)

"AUREOMYCIN PAID US BACK SEVERAL TIMES OVER"

"Feeding this antibiotic brought us many benefits, helped us control foot rot, returned us $3 for every dollar we spent on it," says this Massachusetts dairyman.

"In just over a year, AUREOMYCIN® has paid us back several times over by protecting us against production losses in our herd."

This statement comes from Russell L. Sears, Jr., owner of Bryant Dairy Farm, in Cummington, Massachusetts.

"We have fed AUREOMYCIN to freshening cows, to young calves and to cows troubled with foot rot and bacterial scours. Since feeding our calves AUREOMYCIN, they have had far less than the normal amount of scouring—ordinarily one of the most weakening afflictions that can plague a newborn animal.

"Foot rot," continues Mr. Sears, "is a common problem in most dairy herds that winter in cold, wet climates. It was rare indeed that a winter passed without at least three or four cases of foot rot in our herd. The combination of infection, appetite loss and grazing impairment cost us anywhere from two-thirds to three-quarters of a cow's normal milk production. We found that by feeding AUREOMYCIN our cows were protected so effectively that no real infection ever developed."



Russell L. Sears, Jr. owner of Bryant Dairy Farm, Cummington, Mass.

Why Aureomycin pays

The reason AUREOMYCIN is so effective against respiratory infections, foot rot and bacterial scours in a dairy herd is that this antibiotic fights disease-producing bacteria in the intestinal tract, blood stream and throughout the body. No other antibiotic equals AUREOMYCIN in its activity against a wide range of disease organisms.

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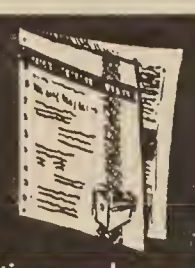
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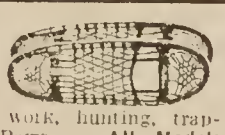
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Say you saw it in *AMERICAN AGRICULTURIST*

Farm Tax Management



By ROBERT S. SMITH*

MORE AND MORE good farmers are becoming convinced that tax management is an important part of running a farm business. To be most effective, tax management must be practiced the year round, and careful consideration should be given at all times to the tax effects of each major business decision.

For practical purposes, tax management can be divided into four steps:

- Keeping complete records.
- Special tax planning for a major change in the business
- Year-end tax management
- Accurate tax reporting

It just doesn't make sense for a commercial farmer to turn his tax worries over to a lawyer or an accountant a week before the tax deadline and ignore the consequences and responsibilities of income tax for the rest of the year.

Start With Records

All taxpayers, including farmers, are required to keep records. Farm records don't need to be complicated or kept in any special manner, **but they need to be kept.** The account books available from county Extension agents are among best.

In addition to a record of receipts and expenses, it is important to keep a permanent record of purchases, improvements, and sales of real estate and other capital items. When a farm is bought, a permanent record should be made of the allocation of purchase price to land, each building, fences, orchards and growing crops.

Big Change—Special Planning

It's bad management to make a sale or purchase involving thousands of dollars of farm property without first considering the tax effects. **Before** a sale or purchase is made, the transaction can be planned with taxes in mind. Professional tax advice should be obtained in most cases involving a major sale or purchase, but the lawyer or accountant can be of limited assistance if called in to "close the barn door after the horse is stolen."

A major fire loss is another problem requiring close attention to tax effects. A farmer staggering from a fire loss only partially covered by insurance may be stunned further to find that much of the insurance proceeds can be taxable income. Tax considerations will influence his decision to rebuild or re-equip after a fire.

Plan Now

A farmer, like other businessmen, has some flexibility in management of his income and expenses. This flexibility should be used to even out his taxable income from year to year. If he allows it to fluctuate widely from year to year, he may lose the benefit of exemptions and deductions in the low years and be subject to high-bracket tax in the best years. The result is more total tax over a period of years.

Between now and January 1 a farmer who reports on the cash basis can make many moves to bring his income more in line with past years and what he expects for next year.

This fall it may be apparent, for example, that 1962 taxable income will be way below normal because of unfavorable weather or prices this year. If so, a farmer may want to adjust taxable income upward. He might do so by selling livestock or crops now that could be sold after January 1, or he may postpone expenses which might occur in November and December until January or February.

Careful study of his own books and plans will disclose other actions that will serve to raise or lower the 1962 taxable income. Most farmers report on the cash basis, which affords more flexibility than does the accrual basis method.

Accurate Reporting

Most farmers want to meet their income tax responsibilities, but they don't want to pay one dollar extra in income tax. Unfortunately, many fail to pay the tax rightfully due, and many others overpay because of

(Continued on Page 15)

INCOME TAX CHANGE

Because commercial farmers normally buy sizable amounts of farm equipment year after year, they will benefit directly and substantially from the new equipment tax credit. Here is a simplified example of how it works:

Suppose a farmer calculates his income tax for 1962 and finds that he has a tax due of $750. During the year he bought the following items of machinery:

New tractor—cost $4,000—useful life 10 years: investment credit equals 7% of $4,000, or $280 (full credit for life of 8 years or more)

New manure spreader — cost $600 — useful life 4 years: investment credit equals one-third of 7%, or $14 (two-thirds credit for life of 6 or 7 years; one-third if 4 or 5 years; zero if less).

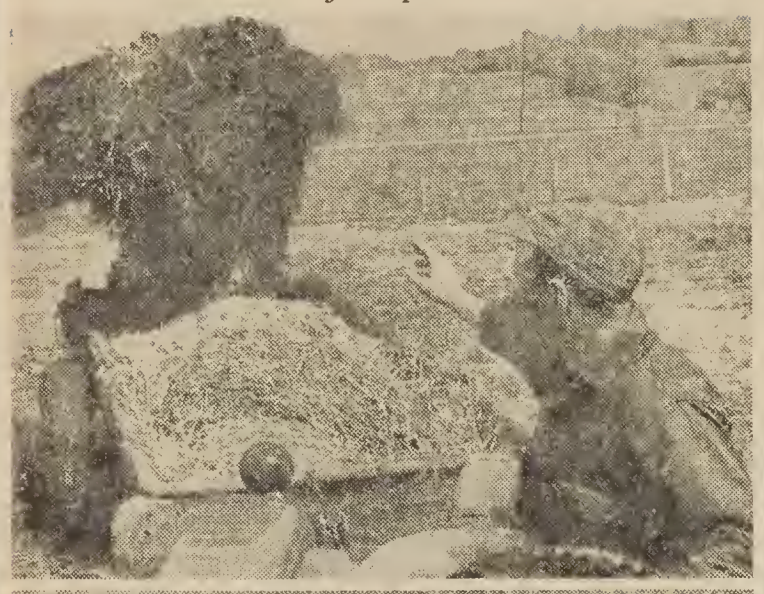
This farmer has an investment credit of $294, which he uses by reducing the tax to be paid to $456. The calculation of credit would be different if old machines were traded in on the new ones.

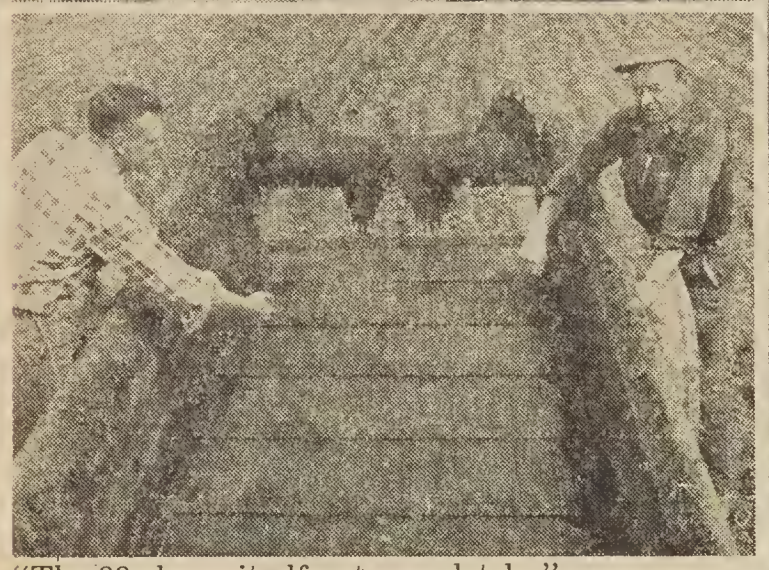
A farmer will be eligible for some investment credit on all items of machinery and equipment which he obtained after 1961, and for which he estimates a useful life of at least four years. The credit does not apply to livestock or to new buildings. If he disposes of the equipment sooner than expected, he may have to add the original tax credit back into tax in the year of disposal.

* Professor of Farm Management, Cornell University

A New York Dairy Farmer reports . . . William Edwards of Clinton, New York, and his son Dean, farm 2,000 acres. Edwards owns 430 head of purebred and mixed Holsteins—sells about 3 tons of milk each day. They had a real manure-handling problem which they solved. Here's what they did:

"Because it's wider—you spill less."





"The 33 cleans itself out completely."



"Hookup is quick and easy with the jack."

"I like the way my spreader tears the manure apart when it spreads. It really rips it up!"



"My John Deere 33 is doing more work for less money"

"My John Deere 33 Dairy Spreader is just right for my operation. It's big enough and husky enough to handle heavy loads, and through a year's use it's been practically maintenance-free. We take out at least three loads every day, and some days handle as many as 10 or 12. With the 33, there's much less spillage because it's wide, and the one-piece beater stays clean. I like its simplicity. There are fewer parts to break down, and that lowers maintenance cost. There are fewer lubrication points, and they're easy to get at.

"We use as much or more straw as most dairymen, but we get no wrapping around the 33's beater, no clogging, no broken teeth. This saves plenty of time in the field, because you don't have to stop and unplug the beaters. And time is important in a big dairy operation like mine. When it's extra windy, you can run the conveyor without the beater going so the manure isn't blown back toward you.

"Another reason why I bought the 33 is its lowness. It's handy to maneuver under barn cleaners, and it's easier to scoop-load than a high-sided spreader. I like the way John Deere has designed this spreader with wooden sides and floor. It's holding up well against corrosion. All in all, my 33 Spreader is doing more work for me for less money."

Like William Edwards, you can spread faster at lower cost. Streamline your manure handling with a new, lower, wider, PTO-powered, 139-bushel John Deere 33 Dairy Spreader. Remember, when you buy a John Deere, you can be confident that you are getting the highest quality spreader for your money—a spreader to use for years. See your dealer. Ask about the credit plan.

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Careful study, testing, and evaluation have determined the scientific compounding of 13 "tailor-made" legume-grass formulas. Each is designed for specific situations. Each includes those varieties which, based on field experience and test work, will do the best job.

Before you plan your spring plantings, investigate Hoffman HPS Formulas. The right balance of varieties may make a sizable difference in your return from every acre. Hoffman HPS Formulas are ready-mixed, pre-inoculated, and ready to sow. Ask your Hoffman Seed Man for details, or write direct.

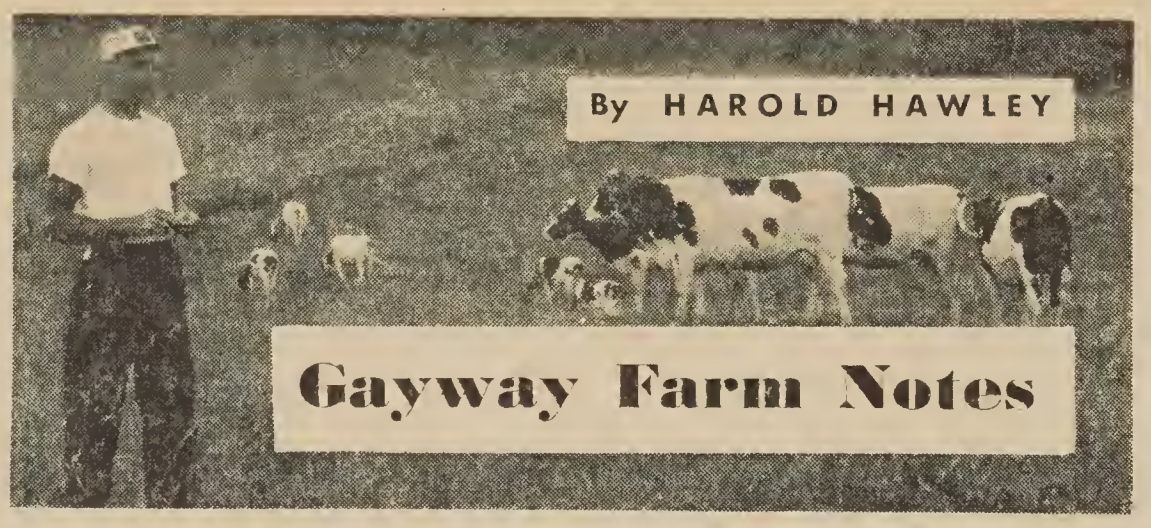
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WHO SHOULD CHOOSE?

AS A MEMBER of our local school board, I have recently had an eye-opening and startling experience—typical of that experienced or to be experieneed by school board members aeross the State.

Under the State Department of Education's Master Plan for School Reorganization, it is proposed that adjoining school districts be merged to give larger school systems. This is especially true at the high school level.

While there may be other reasons and advantages, the predominant consideration is the expectation that the larger high school enrollments will enable an enriched curriculum. This seems perfectly reasonable. There could be another language or two, perhaps a special advanced college entrance English course, more vocational training, and possibly more advaneed science and math. Obviously, a small school with a very small enrollment in advanced classes can't justify the cost of these extra classes.

It has been our observation that while we parents may beef about taxes, we all want the best educational opportunities for our children. Knowing this, I have confidence that parents and communities, if familiarized with the problems and opportunities, will come up with sound and progressive decisions.

The Choice

We were told—as they have or will be telling you—that if we are to build the badly-needed classroom space, we can (1) merge and get 80 percent of the building cost from State Aid; or (2) each community can build to meet its own needs and raise the entire cost from local taxes.

The reasoning is clear. The No.1 approach is expected to get faster results in the direction considered desirable than the slower, more sound educational approach where the voters have a free choice. We must admit that the original centralization of school districts was speeded up as a result of financial help in building the then new central schools. However, in that instance, State Aid was not cut if you didn't centralize but you got extra if you did. This isn't true now.

I seem to recall something about "with the consent of the governed." This kind of a proposition hardly leaves the governed much choice about giving their "consent," though I suppose you might say we gave our consent when we allowed this to be passed by the Legislature. It was all part of the State Aid bill shoved through in the rush at the end of the legislative session last spring.

In my humble opinion, this—and the course of action by the Education Department is only indicative of how little control we have or will have over any of our affairs unless we are willing to assert our rights. Division on this will conquer us; and divided we are; this is only of real concern to a community when it runs up against the need for more classroom space!

I'm convinced that if we all needed space at once, we would be so united against this approach (not necessarily against merging but the lack of choice) as to cause the State Legislature to take appropriate action by amending this portion of the State Aid law.

I'm wondering whether people **care enough** about this infringement on their rights to act and to be heard.

GOOD ADVERTISING

Hats off to Nicholas H. Kolk of Goshen, New York. He has painted his four forage wagons bright green and fastened two-foot-high yellow letters on the sides to spell out MILK BEST FOOD BUY! These wagons are in a pasture off Route 17 Quickway, where thousands of motorists will see them.

Bob Prosser, Chester, New York, with his nearly 30,000 layers, has a nice way of giving the housewife a lift when she goes to the refrigerator for the eggs. His cartons say, QUALITY EGGS FOR QUALITY CUSTOMERS.

FOURTEEN LANES

They weren't all being used when we went through, but this country boy was impressed that the New York City end of the Thruway can handle 14 lanes of traffic as cars pass on and off the Thruway.

We had left home Saturday noon, so by Sunday afternoon when we started back we were wondering how everything was at home. We figured there was nothing to worry about when we began to meet the milk trucks from upstate.

ORANGE COUNTY

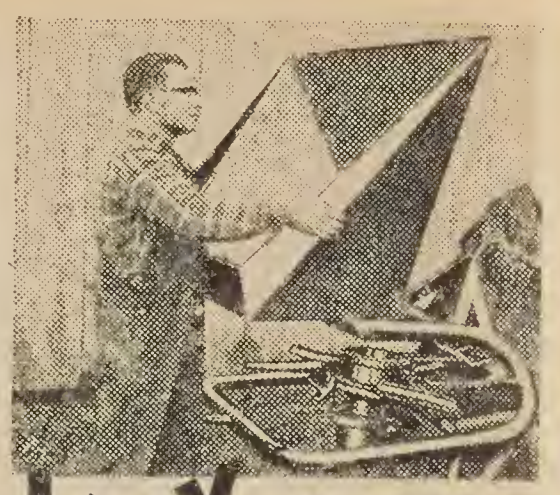
We reeently had our first look at the "black dirt" section of Orange County, New York. No, they don't call it muck, as we do around here. It could almost be called black gold, for over $7,000,000 worth of vegetables are sold from its 10,500 acres annually.

Never saw so many onions. They were all crated, the crates piled about 2 wide and 4 high and covered so they could dry out. The new wrinkle in storing onions, we were told, is to pour them loose into large bins and force air through them.

We saw our first celery "combine". It's a huge affair with conveyor belts leading back to it from in front and from either side. As the machine moves up the field all the celery from about a 35 foot strip is cut, put on the conveyors and elevated to the packing deck, where it is trimmed and packed ready for storage or shipment. Quite a crew of workers are needed, believe me.

There was ample evidence that

(Continued on Opposite Page)



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FOR FAST, EASY CLEANING

The LELY Precision Fertilizer Distributor and Seeder is the **only** broadcaster in its class that features an easily removable hopper and feed ring – allows fast, thorough cleaning in minutes. Maintains efficiency, prolongs life when machine is used with corrosive chemicals, fertilizer, lime, etc. **Ask your dealer for a demonstration** – see the other exclusive design features that make the LELY the leading low cost/high output spreader in the field.

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One application of Dr. Naylor's Dehorning Paste on horn button of calves, kids, lambs—and *no horns will grow.* No cutting, no bleeding. 4oz. jar—$1.00 at your dealer's, or mailed postpaid.
H. W. NAYLOR CO.
Morris 12, N.Y.

Dr. Naylor's DEHORNING PASTE

(Continued from Opposite Page)

these Orange County dairymen have both the cows and the know-how to produce lots of milk even though some of the hay and most of the grain must be bought.

RYE GRASS

We planted our rye grass in the corn when it was so dry it couldn't germinate. It lay there until the rains came in August, and it has never stopped growing. We filled silo when it was too wet to run on other fields, but the sod from the rye grass held us up.

The heifers never had it so good as to get turned into a field of corn-stalks with rye grass nearly a foot high and as lush as grass in May.

After the dry spell and early summer, it is a pleasant surprise to find that the corn crop responded to heavy fertilization and the late rains well enough to give a fine yield. Locally, frosts held off until the last week of October, so the corn had time to get mature and ready. All's well that ends well.

GREETINGS

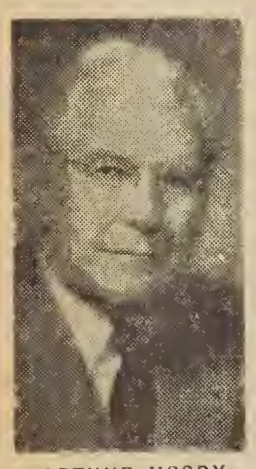
We here at Gayway Farms wish each of you a very Merry Christmas, and good health for the coming year.

Reflections of a Country Pastor

Reality Breaks Through

By ARTHUR MOODY

YEARS AGO I heard a world traveler describe an experience in the South American Andes. He requested the pack horse drivers and guides in his caravan to camp for the night while he himself went higher, beyond sight and sound, to spend the night in solitude. His report was that "No one could go through such an experience without coming to realize the presence of the great Over Soul!"



ARTHUR MOODY

Admiral Richard Byrd attested to such a discovery during his months of volunteer solitary isolation at the South Pole. I heard him declare to a throng of students and their parents that he was conscious of "Another" — strengthening, encouraging, even directing his human resources to survival and victory.

Millions saw and heard Astronaut John Glenn when on TV he stated his unshaken faith that God was with him all the way. His belief was steadied by having been a reality over many years as a conscious fact of life. Daily contact keeps the vision clear.

Perfectionists like Saint Paul, Martin Luther, and John Wesley discovered that there is a Power beyond and behind all the strict obedience to law, ritual and practice. That Power produced through the human an illumination, a fervor, an enthusiasm—and a dedication almost beyond belief. So does the Ultimate Reality break through to earthly vision.



ONLY NEW IDEA MAKES A FLAIL SPREADER... IDEAL FOR TOP DRESSING

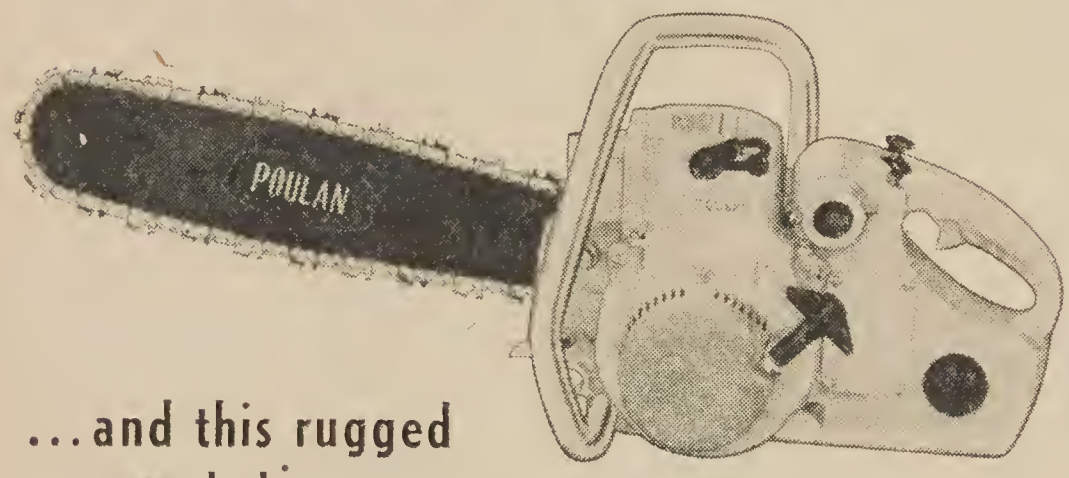


With this great new NEW IDEA spreader, sixteen weighted, sharpened, free-swinging steel flails chop manure into small pieces as it is fed by the smooth PTO drive and conveyor. Using undershot action, it lays down a uniform 80 to 90-inch wide pattern, even in zero or sub-zero weather, regardless of crosswinds. Small wonder that the flail spreaders are fast becoming the favorites to handle the tough spreading jobs. Like all NEW IDEA spreaders, the flail spreaders have boxes of clear yellow pine that are water-repellent Penta treated. One easy-to-reach lever controls five spreading rates — from top dressing to heavy spreading — plus neutral. See the world's most complete line of spreaders all backed by a full year guarantee. Visit your NEW IDEA dealer soon, or write NEW IDEA, Coldwater, Ohio, for full information.

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MODEL 43 Bantamweight
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Use those Fast Acting, inexpensive KO-EX-7 Brom Thymol Mastitis Detectors
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H. W. NAYLOR CO., Morris 2, N. Y.





David Wentworth (left) and Charles Cook bale Douglas fir for shipment.



Cleland Cook indicates normal annual growth of one of his trees.

CHRISTMAS TREE SPECIALIST

By Hugh Cosline

ACCORDING to Cleland Cook, "there is more to growing Christmas trees than planting, watching them grow, and taking in the money." After I tell you what I saw and heard while talking with him and seeing his quarter million trees, I am sure you will agree with him.

Before I get into details, let's take a look at Cleland's background and experience. Believe it or not, he began growing Christmas trees when he was ten years old. Hearing his dad discuss the merits of purebred cattle, he decided that some of the same traits might be applied to trees. So he searched for and discovered a balsam tree with unusually pleasing characteristics. From it he collected seeds and planted them, a practice he has continued until the present.

For a time he was assistant to a professional forester, and later a technical writer for a trade magazine. But, unlike many who still sit at a desk while wishing fervently for greater freedom, Cleland Cook took the plunge, came back to Central New York, and did what he wanted to do—he grew Christmas trees. In fact, in his Chenango County plantation, near South Otselic, New York, he has fifty-seven species and varieties.

"There is no surplus of quality Christmas trees," Cleland told me. "A considerable number of growers who went into the venture as an easy way to riches are falling by the wayside.

"It takes time to grow a good tree. A Scotch pine table tree, the smallest we sell, is five to six years old. An eight foot tree is twelve to fourteen years old. And we sell a few for outdoor community trees that are still bigger, and, of course, older."

In the meantime, there is transplanting, cultivation, pruning or shearing, spraying for control of insects, and, of course, cutting and marketing. Many of the trees on the Cook plantation are transplanted twice. In the nursery they are cultivated several times a year to control weeds, commercial fertilizer is used, and each fall the ground is covered with a heavy mulch of sawdust. After they are transplanted from the nursery, a self-propelled band mower with a 22 inch cut is used to control weeds and brush.

All of the trees, both in the nursery and in the field, are trimmed or sheared to make them thick, and to keep a desirable shape. All are sprayed with DDT in the spring to control the white pine weevil, and a "miticide" is added to control mites.

Marketing

Marketing has its problems. The day after Christmas a harvested tree has no value. Many, many growers have lost money when fly-by-night buyers order and then fail to take delivery and make payment.

"I have a heart of stone," says Cleland. "I require a payment of 50 percent of the purchase price in cash or certified check when the agreement is made, and the balance on or before taking delivery of the trees. The buyer also signs a contract stating that he forfeits the down payment if he fails to take delivery. It has lost me some customers, but I can see no merit in a customer who doesn't pay. At the same time, I give good customers all the service I possibly can.

"We retail around 250 trees in

(Continued on Page 15)



Installation date—1948. Place—Frank Zeafla's home in Liberty, Pa. Service required to date—none, except . . .

. . . Eleven years later, we reset the thermostat.

GLF Freezers give you dependable, troublefree service. Frank and Bina Zeafla had this 30 foot model installed in their Liberty, Pa. home in 1948. Three years ago, they asked us to adjust their thermostat. That's the first and *only* service call required in 14 years of continuous use.

GLF *Unico* Freezers are made to the same exacting standards today. They're slimmer. Quieter. More beautiful. Finished with *two* coats of durable dulux enamel. And still backed by the same GLF guarantee of honest value. One year warranty on the complete freezer. Five year warranty against food spoilage. Five years on the compressor unit. Plus the dependable, efficient service that's become a tradition in GLF. Wouldn't you like to own a beautiful GLF *Unico* Freezer like the one on the right? You can. The cost is much lower than you might expect. Take your choice of sizes ranging from 9 to 30 cubic feet. Call your GLF today. *Cooperative GLF Exchange, Inc., Ithaca, N. Y.*

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(Continued from Page 6)

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Henderson Central	Glenda O'Riley
Holly Central	Alice Crawford
Homer Central	Marie DuMond
Horseheads High	Albert Pearce
Ithaca High	Susan Long
Lake Shore Central	Barbara Clark
Laurens Central	Edith Harrison
Leonardsville Central	Bonnie Catlin
LeRoy Central	Gerald Call
Lima High	Lauri Gibbs
Madison Central	Roy Leuenberger
Madrid-Waddington Central	Richard McMillen
Mayville Central	Carolyn Beck
McGraw Central	Frederick Monroe
Mexico Academy & Central	David Druce
Middletown High	John H. Clark
Milford Central	Joan Teachout
Moravia Central	Ronald Nesbitt
Morristown Central	Ronald Tulley
Naples Central	Francis Mansfield
New Berlin Central	Donald Johnson
	Sandra Benson
North Syracuse Central	Richard Bailer
Nunda Central	David Gallton
	Dale Hopkins
Oakfield-Alabama Central	Peter Will
Oneonta High	Sharon Brightman
Ovid Central	Sharon Yearsley
Palmyra-Macedon Central	Frank Bush
Phelps Central	Kent Fisher
	Carol McIntyre
Pine Valley Central	Timothy Dye
Portville Central	John Zelko
Potsdam Central	Hubert Brothers
Red Hook Central	Sandra Saulpaugh
Roeliff Jansen Central	Peter Nowak
St. Johnsville Central	Donald Waner
St. Lawrence Central	Grace Ramsdell
Salmon River Central	Faye McDonald
Saranac Central	Yvonne St. John
Sauquoit Valley Central	Charles Gaffney
Scio Central	Bruce Chalker
Schoharie Central	Jim Diamond
Seneca Falls	Eugene Miller
Skaneateles Central	James Manley
Smithtown Central	Susan Stevens
South Kortright Central	Frank Lamport
	Ruth Svegl
South Lewis Central	Richard Hill
Stamford Central	Sharon Kipp
Stockbridge Valley Central	Karen Braendle
Suffern High	Anna Yansick
Sweet Home Central	Kathryn Martens
Trumansburg Central	Dale Conroy
	Adeline Albrecht
Truxton Central	Joan Phelps
Van Etten Central	Mae Robbins
Walton Central	Dennis Budine
Warsaw Central	Arthur Roggow
Washington Academy	Esther Lockwood
Waverly High	Frank Webster
Wayland Central	Gerald Rawber
	Sheralyn Wolfanger
Wayne Central	Kenneth Nortier
Wellsville High	Fred Cornelius
West Canada Valley Central	Bradford Helmer
West Valley Central	Carol Hebdon
West Winfield Central	James Schiebel

PENNSYLVANIA

Bellefonte Area High	Wayne Lutz
Berlin Brothersvalley Joint High	Charles Miller
Berwick Area High	Bonnie Wellwer
Boyertown Area High	Andrew Stauffer
Brockway Area High	Richard Smith
James Buchanan High	Virginia Straley
Central Columbia County Joint High	James Lupini
	Donna Benshof
Coudersport Joint High	Michael Snyder
Cowanesque Valley Joint High	Raymond Calkins
Damascus Township High	Kenneth Canfield
	Meryl Taggart
Elderton Joint High	Larry L. Rearick
Elkland Joint High	Charles Johnson
Evans City High	Carrie Beining
Fort LeBoeuf High	Charles Heynoski
Gettysburg High	Elva Valentine
Jersey Shore Area Joint High	Jo Ann Myers
Juanita Valley High	Gary Eberle
Lakeview Consolidated	Howard Landkrohn
	Sue Sopher
Latrobe High	Edna Kirtland
Liberty Joint High	George Beck
	Karen Helsel
Middleburg Joint High	Leslie Risser
Newport Union High	Benjamin Mitchell
Northern Potter Joint High	Gordon Erway
Penn Argyl Area Joint	James Ackerman
Pequea Valley High	John W. Eby
	Janice Shelley
Southern Joint High	Robert Daren
Sugar Valley	James Welshans
Tulpehocken Area Joint	Gerald Bowman
Victory Joint High	James Phipps
Williamsport Technical Institute	Joseph Koch
Wyalusing Valley Joint High	Eugene Franklin

RHODE ISLAND

Coventry High	Kenneth Sorenson

VERMONT

Bellows Free Academy	Paula Raine
Brattleboro Union High	Rexford Bartlett
Chester High	Robert Metcalf
	Patricia Peck
Lyndon Institute	Patricia Moore
Newbury High	Sidney J. Bailey
North Troy High	Leon Mead
Orleans High	Wayne Hancock
Peoples Academy	Linda Williams
Vergennes Union High	Albert White
Wallingford High	John Simonds
	Judith Coleman

Foundation Winners

(Continued from Page 6)

cheerful color scheme for the rooms on the first floor of their home." Barbara went on to paint the large living room, dining room, bedroom and kitchen, her own bedroom — and the bedroom furniture; all this while she also held a summer job as clerk in a store.

Virginia Lee Beitzel, SOUTHERN (Maryland) HIGH SCHOOL, started junior high as a shy, retiring little girl. She has overcome it, done well in school, and was among 16 students from her school selected to visit the United Nations. She earns her pin money by ironing for different families, a task she thoroughly enjoys, together with baby-sitting.

At TRUMANSBURG (New York) CENTRAL SCHOOL, Miss Margaret E. Elliott, homemaking teacher, writes of their winner, Adeline Albrecht: "Adeline and her family came as refugees from Germany when she was seven years old. Her enthusiasm, desire for learning, and application has made her a real asset to our class. On visiting her home, I have found many class lessons put into practice."

Meryl J. Taggart lost her mother when she was nine years old, and she has had many home responsibilities. Her class work at DAMASCUS TOWNSHIP (Pennsylvania) HIGH SCHOOL is very good; her teacher describes her as being talented to the point of being exceptional. Her special ability is demonstrating hair styles and doing make-up. She plans to get further education along this line, probably at Virginia State College.

BELLOWS FREE ACADEMY, St. Albans, Vermont, chose Paula Paine as the winner of the Foundation Award. Paula did outstanding work this past year in the child development course, taking charge of a nursery school for 17 pre-schoolers.

LATEST POULTRY BRIEFS

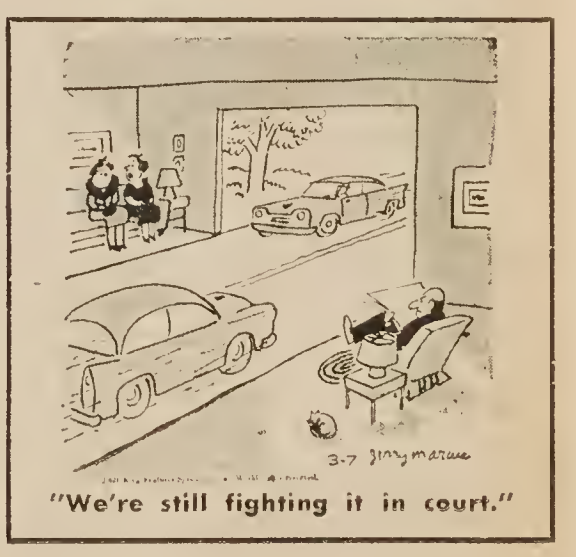
No Windows — Studies at the University of Idaho over a two-year period indicate that laying hens perform the same in a windowless pen as in one with windows during the winter, with a climate like that of northern Idaho. The study covered egg production, mortality, and feed consumption, as well as pen temperature, humidity, litter temperature, litter moisture content, and ventilation.

Points in favor of the windowless structure include lower building costs, more even temperature control, and the fact that most windows get so dirty that artificial light has to be provided anyway.

Fowl Mite — This tiny pest, which infests many chickens and other birds, has grown immune to many currently used insecticides. But Professor John G. Matthysse, Cornell entomologist, told producers at the Poultrymen's Get-Together that insecticides Sevin and Co-Ral have passed stiff tests and proved satisfactory in controlling the mite, in safety for the birds, and in leaving no residue in meat or eggs.

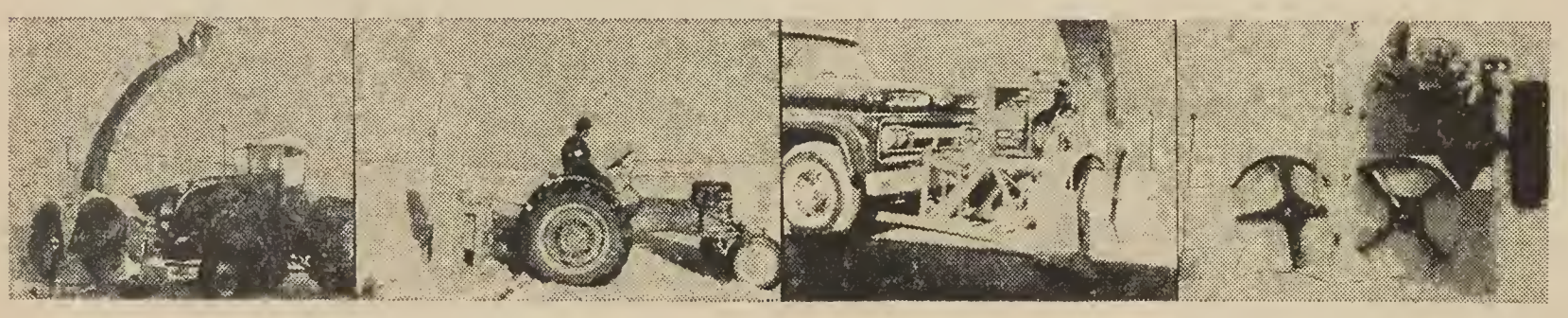
Opportunity — Professor Jonathan S. Tobey, economist at the College of Agriculture at Cornell, feels that feed purchasing and handling offer the greatest opportunity for New York poultrymen to reduce egg production costs and increase profits.

Freezing Eggs — A new machine which has been tested at the New York State College of Agriculture blends the yolk and albumen of the eggs to just the right consistency for freezing. Then the mixture is carried through a tube to a freezing container. This should be of interest to farmers who are freezing eggs for sale to bakeries, etc.



"We're still fighting it in court."

PETERSON SNOW REMOVERS & LOADERS



Front mounting brackets are universal for all loader frames, on all makes and types of tractors, whether agriculture, wide or narrow front or industrial tractors, crawlers, payloaders, trucks, and jeeps driven by offset PTO or engines mounted on remover. Also rear mounts for all three point or two point hydraulic lifts on all tractors.

Snow chute easily tripped to throw or load either left or right. Extension Loading chute available at small extra cost. Only operating adjustment is raising or lowering of hydraulic unit.

For rapid low cost snow removal on city streets, farms, ranches, dairies, small communities, yards, docks, parking lots, lanes and roads.

Handles dry or packed drift snow—wet or slush snow with temperatures over 50 degrees above, no freezing ever created or clogging in chutes as rotors only run from 375 to 425 RPM.

This snow remover and loader employs a new and exclusive principle, created by a new invention. Removes or loads snow twice as fast. Throws snow left or right up to 100 feet or can be windrowed.

Handles dry, wet and slushy snow without adjustment. Requires only 50% horsepower of auger-blower type machines.

Three or four blade rotors slice and throw snow into discharge chute. Action of blades forces snow to travel faster than blades revolve, creating jet action. Especially efficient under adverse conditions. 12 years at proven service. Loads 7½ cu. yd. truck box (of pulverized snow) in less than one minute. Will remove snow 8-9 feet deep—also bank breaker available that attaches to remover for fourteen to sixteen foot drifts. No augers or blowers. 6' cut 8' cut with extensions. Weight approx. 860 to 1200 lbs. Requires only one-half the power. Easy to install, simple to service. One of the only machines built today that will pay for itself in 50 to 70 hours as custom operators get from $20.00 to $40.00 per hour. "Think of it" Price starts at only $795.00 and up. Plus our Economy model Snoboy at only $587.45. Plus extra large units built on special orders.

Place your orders early now—in 1961 we ran three to four weeks behind delivery.

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Christmas Tree Specialist

(Continued from Page 12)

Cortland, N. Y. each year, and sell a total of from 600 to 2,500—depending on the season. They go to New York, Buffalo, Philadelphia, Syracuse, and other cities—some to wholesalers, others to retailers, especially nurseries. Incidentally, we sell a considerable number of live trees for landscaping."

As is always the case, information given by a farmer—and Christmas trees are a farm crop—always brings questions to mind. For example, I was curious about the trimming operation. Cleland told me that his youngsters (Charles, a junior in high school, and Vici Lynne, a freshman) have helped him shear trees since they were six years old.

Different varieties require different kinds of pruning, which can be done at different seasons, thus helping to spread the work load. Two or three small trees can usually be pruned per minute with hedge shears; eight to ten minutes per tree are required for an 8 foot tree that may be 12 to 14 years old. Incidentally, the scheduled sale influences the shearing date, for the earlier the sale, the earlier shearing or pruning is started. For example, if a Scotch pine is scheduled for sale at six to eight feet, pruning is started when it is three to four feet tall.

There are interesting angles to harvesting trees. In spite of the best of care, some grow faster than others, so the ones to be cut on a particular field this year are marked. Then after three years of cutting, all those remaining are cut and sold at a discount.

The field is then hired plowed, millet or buckwheat is sowed, and the next year, trees from the nursery are set out five feet apart each way. As the weeds are kept mowed, grass gradually takes over.

Cleland Cook is blessed with an inquiring mind. Not only does he try many varieties and strains, he has experimented with method and time of trimming, with the effects of commercial fertilizer, and even with chemicals to color or retain the color of the trees. He finds that commercial fertilizers help growth under cultivation in the nursery, but their use is unprofitable after trees are moved to the plantation.

Visiting with a man shows more than his skill as an operator. Cleland's decision to forsake office work shows his independence. His love for his trees is revealed by this remark: "I like to think of the pleasure these trees give to so many people. I am not rich in terms of m o n e y," he said, "but I am wealthy!"

Well, have I convinced you that it takes more than nature to grow a top-quality Christmas tree? I hope so. Certainly it requires spraying, weed control, constant trimming, and careful marketing. Perhaps when you are buying this year's tree you will look for one that is truly beautiful, and will pay the extra price gladly!

TAX MANAGEMENT

(Continued from Page 8)

poor records and sloppy tax reporting.

Every commercial farmer ought to have a general knowledge of farm income tax rules and regulations. If he decides to make out his own returns, he'll need to read widely to keep up to date. If he hires the job done, he should pick his tax advisor carefully and provide him with good farm records.

Keep in Mind

In managing income for tax purposes, some of the most important points to keep in mind are:

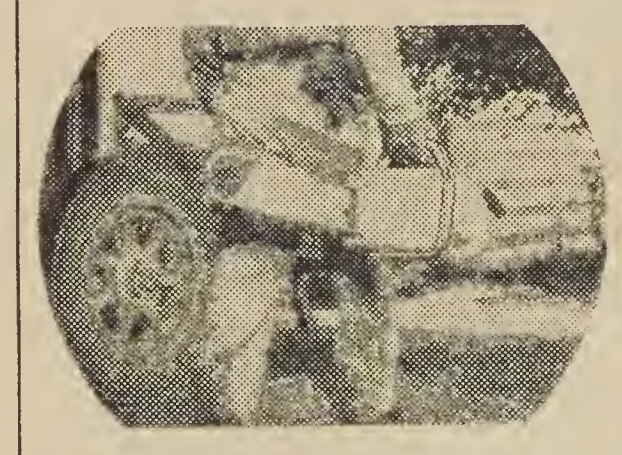
- Adjustments to minimize taxes can result in an unprofitable decision for the business. A farmer who buys fertilizer in December to cut taxes this year, then allows the fertilizer to go out of condition before it's used in the spring, has defeated his own purpose.
- Social Security is probably the best investment in survivorship and retirement benefits a farmer can make. In striving to cut taxes, it's important to remember that the level of farm earnings determines Social Security benefits for the farm family.
- Personal deductions and exemptions not used up each year are automatically lost. Every taxpayer is allowed some tax-free income through deductions and exemptions. A poor year in the farm business can result in income so low that this tax-free income is lost. Year-end tax planning can level out year-to-year income and avoid this loss.
- It is never good business to report anything but the truth on an income tax return. Cheating on taxes can be mighty embarrassing and very costly.

To know what a farmer wants, ask him.



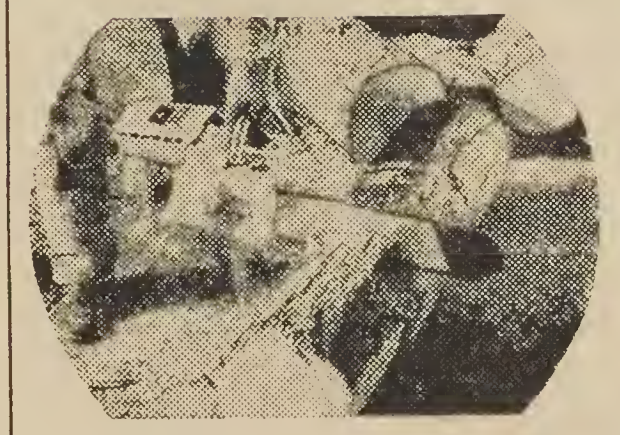
McCulloch did!

We asked over 3000 farmers across the country what they wanted in a chain saw. They answered: a chain saw that starts fast, stays dependable; one that is economical, and easy to handle at any angle. McCulloch's ONE/43 direct drive gives a farmer all he wants.









21010

The ONE/43 starts fast. Its dependability is proven—people have bought more than a million of our saws. Economy? With the ONE/43 you get a full 16-inch laminated-welded cutter bar and Super Pintail® chain, plus a reboreable cylinder for years of added life. You can add McCulloch power tools to the ONE/43 engine to cut weeds, dig holes, do plenty more. Easy to handle? That comes easy to a McCulloch saw because it is compact, light in weight, and the piston works horizontally to reduce vibration and fatigue. What's the price? Only $149.95* on easy terms with approved credit. Visit your dealer and try a ONE/43 in action. While you're there enter McCulloch's $50,000 Pick-A-Prize Sweepstakes. It's as easy as writing your name. Sweepstakes ends January 15, 1963.†

*Manufacturer's suggested list price †Sweepstakes void where prohibited by law.

McCULLOCH

LEADERSHIP THROUGH CREATIVE ENGINEERING



1962-63 members of the New York State Grange Executive Committee. Left to right, seated: Russell S. Curtis, Cazenovia, Master; Leonard M. Fuller, Edwards, Chairman; and Leland D. Smith, Brasher Falls, committee secretary. Left to right, standing: Morris J. Halladay, Groton, State Grange Secretary; Edmund M. Marvin, Sr., Macedon, committeeman; Robert S. Drake, Woodhull, Overseer.

New York News and Views

Grange — The New York State Grange met in annual session at Syracuse, October 29 to November 2. Nearly 300 delegates—and an equal number of friends and members — attended, listened to a challenging address by Master Curtis, heard reports of their officers, considered resolutions, and elected officers.

Newly-elected officers included: Russell S. Curtis, Cazenovia, Robert S. Drake, Woodhull; Edward Beightol, Falconer; Nelson Marolf, Castorland; and Edmund H. Marvin, Sr., Macedon. Leonard M. Fuller, Edwards, was named chairman of the executive committee; Leland D. Smith, Brasher Falls, secretary.

Among the resolutions considered and recommended was adoption of a report recommending a two-price system for milk sold in the New York-New Jersey market—or, failing that, a supply management system with incentive payments for production reduction and assessments for over-production.

Other resolutions included: continue current manufactured milk supports (due to drop April 1) pending a new program; indemnities for animals condemned for brucellosis; permit at farms sales of 100 quarts daily of raw milk; control of blackbirds and starlings. On legislation, the raising of the age for purchasing intoxicating beverages; a one-year residence requirement for welfare recipients; that the vehicle registration year be changed to July 1-June 30 to case the tax load; a clear definition of water rights in streams; and a commemorative postage stamp to depict the forthcoming 100th anniversary of the Grange.

NYABC — A capacity audience at the 22nd annual meeting banquet on October 20 heard Gordon Cameron, president of the Farm Credit Banks of Springfield, Massachusetts, say that "cooperatives have to work under the same economic laws and regulations as any other business—and must do it better, cheaper, do something no one else has done, or do the job faster—to be assured of their economic place in the sun." The annual technician-managers' Distinguished Service Award was presented by Editor Gordon Conklin.

Farm Bureau — Held in Syracuse, New York on November 12 to 14, the annual meeting of the New York Farm Bureau had a fine slate of speakers. Intermingled with the business sessions were talks by such outstanding speakers as President William E. Bensley; John C. Lynn, Farm Bureau Legislative Director in Washington; Congressman Otis G. Pike; Stanley W. Warren, professor of farm management at Cornell University; and Congressman Alexander Pirnie; together with New York State Commissioner of Agriculture and Markets Don J. Wickham.

Also on the program was Dr. Marvin A. Rapp, a recent Freedoms Foundation winner and vice president of Nassau Community College, Mineola, New York. Dr. Herrell DeGraff, who recently joined the staff of the American Meat Institute in Chicago, was the banquet speaker. The Home Bureau group was addressed by Mrs. Helen M. Clark, a New York City lawyer.

Special recognition was given to State Senator Austin Erwin of Genesee for distinguished service to agriculture. An award for outstanding leadership in agriculture was presented to Donald Green of Chazy, New York Farm Bureau president 1958-61.

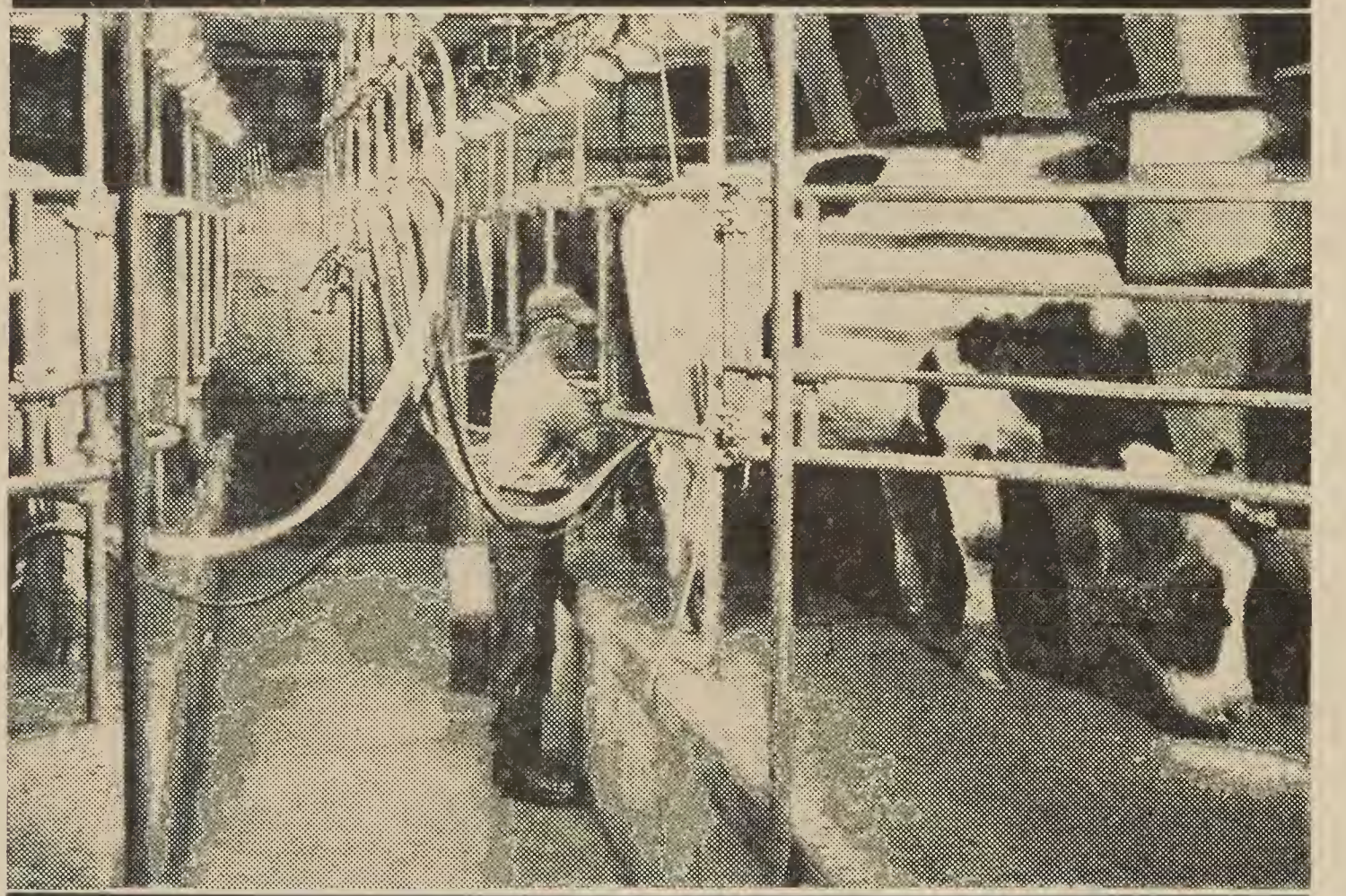
Metropolitan Bargaining Agency — Dairy farmers from four states gathered in Syracuse on November 7 and 8 for the 26th annual meeting of the Agency. The cooperative is a federation of 94 cooperatives representing more than 20,000 dairy farmers.

At the banquet on the Wednesday evening the featured speaker was John C. Metcalfe, Chicago Sun-Times Daily News Syndicate writer, who presented an analytical foreign affairs report on the topic, "Where Are We Going?"

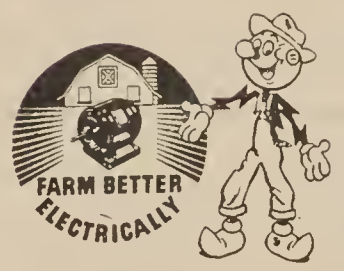
Agency delegates considered resolutions dealing with many phases of the farm business, but only one resolution really struck fire among them. This concerned supply management. A resolution was presented calling for a roll call vote, in which each delegate would go on record as either favoring or opposing some kind of supply management program.

However, it became obvious that delegates were not yet ready to do this, and so the final resolution merely instructed both directors and Metropolitan staff to participate with other groups in the consideration of any program designed to solve the problem of surplus milk, and in any program which would in any way affect the income of dairy farmers.

FARM BETTER ELECTRICALLY



Infrared heating in the milk parlor
KEEPS YOU WARM...KEEPS COWS COOL



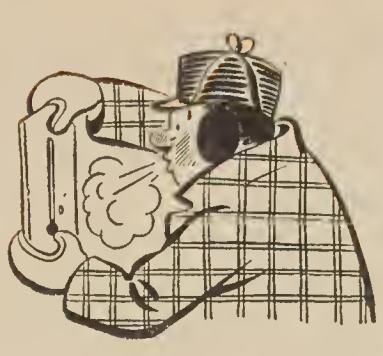
Installation of infrared heat lamps is the easiest and best way to provide yourself with comfortable heat in your milk parlor. Each individual lamp heats up instantly and can be directed to the exact spot it's needed—the milking pit. That way you warm up while the cows stay cool. When the milking operation is complete, you simply turn the lamps off. There's never any unused heat, saving you money.

Infrared lamps also give you a bonus of light in the milking parlor, as well as heat.
Your Niagara Mohawk Farm Representative has detailed information on the low cost infrared lamp set-up that will best suit your needs. For free advice on this, or any of your electrical problems, contact him this week through your nearest Niagara Mohawk office.

NIAGARA MOHAWK
INVESTOR OWNED-TAXPAYING

Mothballing Engines For Winter

By THOMAS E. CLAGUE



UNUSED ENGINES should be protected over the winter—just as woolen blankets and Navy ships are put "in mothballs." Maintenance during disuse can be of almost as much importance as maintenance for use so far as length of service is concerned.

There are more and more engines that are not used during the winter months. In addition to tractors that may not be in use, there are the engines of combines, balers, windrowers, etc. There are liquid-cooled engines; larger air-cooled engines; and smaller air-cooled engines such as are found on lawnmowers, garden tractors, and other small tools.

The three important areas to consider in readying an engine for winter storage are: fuel system, oil, and cooling system.

Cleans and Protects

Gasoline that is stored for an extended period tends to form gummy deposits that can clog lines. One of the simplest ways to avoid this problem is to run the engine out of gas so that the tank, lines, carburetor, etc., are empty. That way you won't have a big fuel-system cleaning job on your hands next spring.

In addition to lubricating the engine, oil is an effective cleaning and protecting agent. It is well to have fresh, clean oil installed for the winter. As an engine runs, various contaminants are formed—acids, water, etc.; these tend to attack the materials in the engine instead of protecting them. A fill of fresh oil will clean the engine and furnish maximum protection.

If there is a filter on the engine it would be well to change it. After filter and new oil are installed, the engine should be run for a few minutes so that the clean oil can reach all parts. When you are ready to use the engine next season, it will have a fresh fill of oil—one more nuisance job out of the way for that busy time.

The cooling system shouldn't be just drained and left dry for the winter; this subjects the entire system to danger of corrosion. The system should be drained and flushed out thoroughly—even cleaned with oxalic acid if necessary—then filled with an anti-freeze solution, just as though it were going to be used. This is necessary to protect the cooling system for longest engine life at top performance.

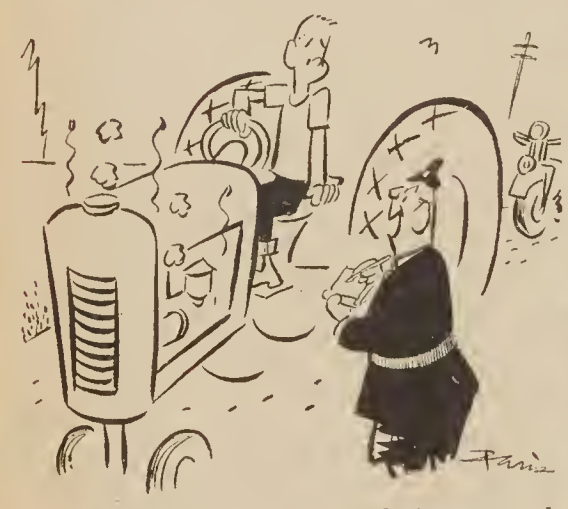
There are two things here that reduce the cost of such care to a level much lower than might appear at first glance. First, the type of anti-freeze can be the lowest-priced methanol you can buy, instead of the more expensive ethanol glycol types which must be used in engines operated under normal loads during the winter. And second, this anti-freeze can be used for many seasons, since it is not subjected to the conditions that cause deterioration of the protective qualities of anti-freeze. (These conditions do exist in an engine that is being operated.) Thus, protecting unused engines with anti-freeze needn't be very expensive over the long pull.

Good Practice

Air-cooled engines require the same essential care except that there is no cooling system to be protected. Small engines, such as those used on lawnmowers, benefit from the same good care. Two-cycle engines do not have a supply of oil in the crankcase, since the oil is mixed with the gasoline, so they require even less attention. However, it is good practice to remove the spark plug and squirt some oil into the cylinder with an oil can. Turning the engine over a few times, with the plug still removed, will help to distribute the oil over cylinder walls and piston rings.

Such protection is sound for any engine, large or small. While plugs are removed, they should be inspected and cleaned, adjusted if necessary, or replaced. In fact, the whole ignition system might well be checked and necessary parts obtained during the winter season.

Your investment in engines that are not used over the winter may run from a few dollars for a lawnmower power plant to hundreds of dollars for several larger engines. In any event, "mothballing" your engines for winter is sound protection of your investment.



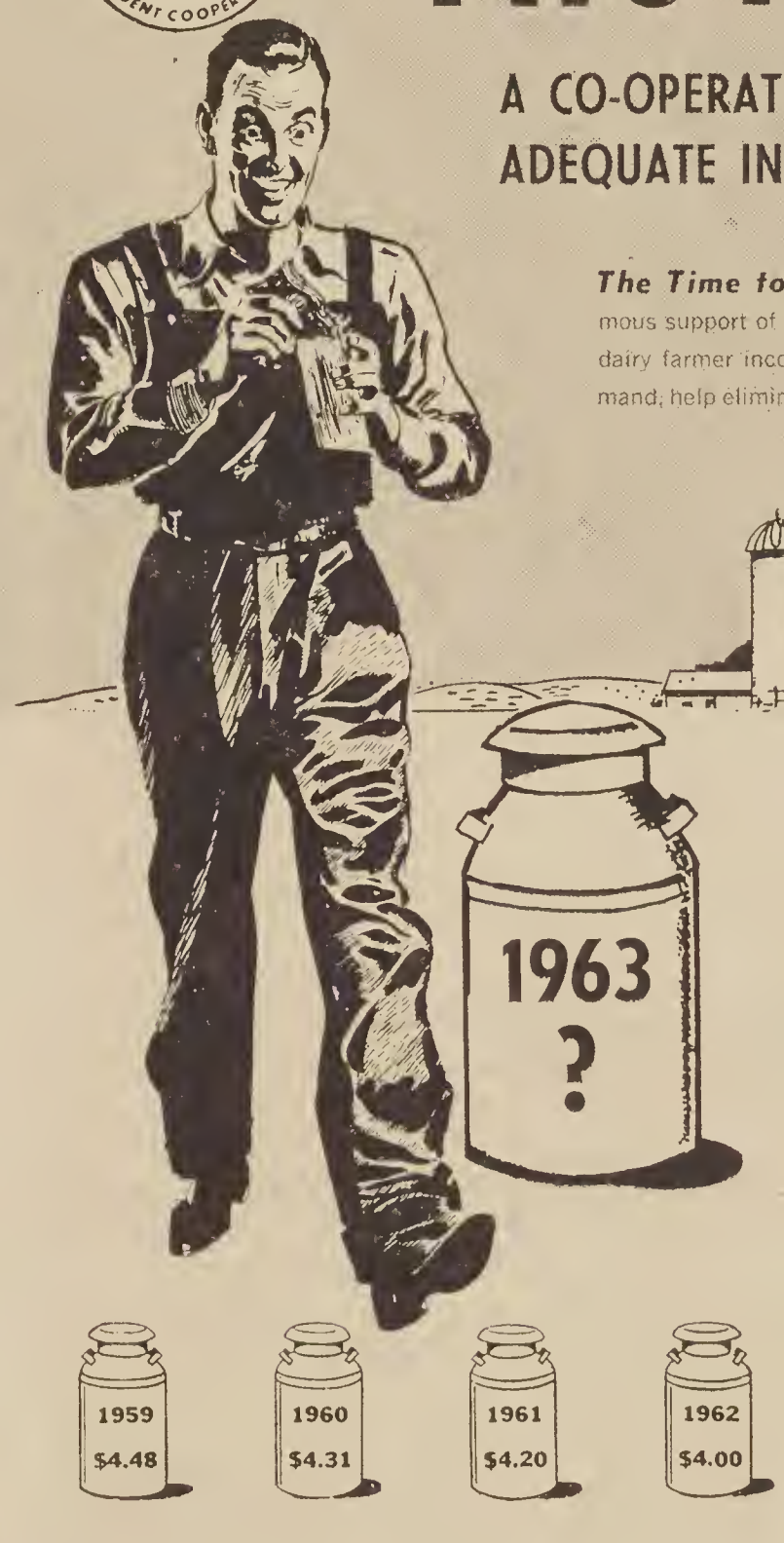
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"TWO PRICE PLAN"

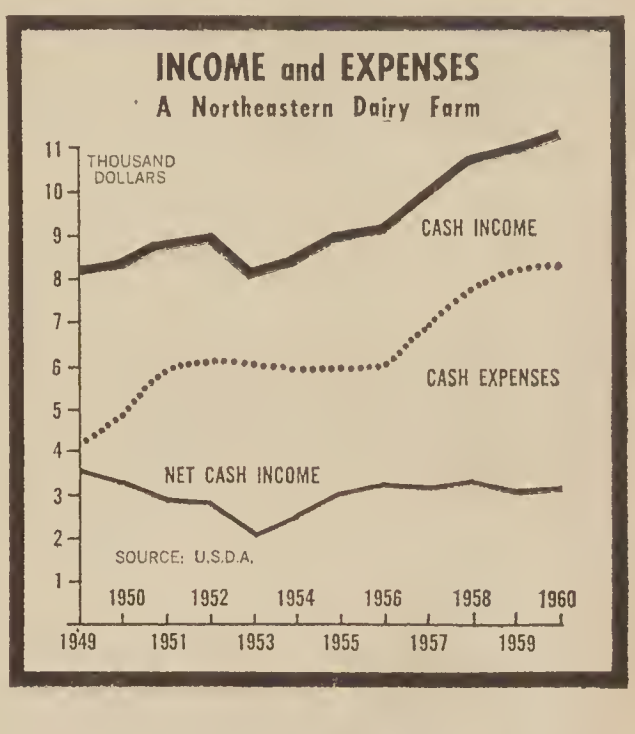
A CO-OPERATIVE EFFORT TO MAINTAIN ADEQUATE INCOME FOR THE DAIRYMAN!

The Time to Act Is Now! The type of action needed is unanimous support of the TWO PRICE PLAN. The goals are: to increase the net dairy farmer income; discourage over production; balance supply and demand; help eliminate national dairy surplus; save millions of taxpayer dollars.



MARKET REPORT

From 1959 to 1961, a 10% production increase reduced the blend price paid to producers by 28c per CWT. The current market already over supplied by 25% is presently headed for ever greater surpluses and further depression of prices.



MUTUAL FEDERATION THE "ACTION COOPERATIVE" URGES YOU TO ACT NOW.

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Mutual Federation
OF INDEPENDENT COOPERATIVES, Inc.

205 Harrison Street, Syracuse, New York

Price and Milk Supply

By C. W. PIERCE*

THERE are many economic and social forces continually exerting influences on farmers to change their milk production. Actually, the price of milk itself may be of lesser importance than are some other factors—yet, because fluid milk markets are regulated, price may be the one about which something can be done.

Technology, which permits the substitution of capital for labor but in turn invites more output in order to spread overhead costs, certainly has been a dominant factor affecting milk production. Its influence may be diminished by a price decline and may be stimulated by a price increase, but nevertheless the effects of developing technology continue to some degree regardless of whether the price is rising or falling. Other forces affecting farmers' decisions to increase or decrease production, of course, include: prices of cost items (particularly feed), returns from alternative agricultural enterprises to which they might shift some resources or from which some resources can be gathered to put into milk production, and the availability of nonfarm jobs to a man who considers going out of production.



C. W. PIERCE

*Professor of Agricultural Economics, Pennsylvania State University.

There are many things which cause individual farmers to fail to respond to a reduced price or perhaps to an increased price. These would include such things as sunken investments of capital which have no alternative use, the farmer himself who is 50 to 60 years old with no place to go other than onward to social security and, of course, lacking alternatives, the belief that he may hang on until returns from milk production improve.

Furthermore, dairy farmers at any one time are not in adjustment with economic forces and technological opportunities. They are in the process of making an adjustment, the full results of which may not show up for several years. And by the time these adjustments have been made, the underlying technology may have changed, calling forth a whole new series of adjustments.

In view of these various complications one should be careful about declaiming as to effects of any particular price change upon milk production in a particular area. The total response which milk production in a milkshed or a region makes to a price change is an algebraic summation of responses on many farms. Undoubtedly, there are a variety of responses on individual farms and there are both long-time and short-time responses.

Furthermore, the mere fact that milk production increases at the same time or following a decrease in price is not conclusive evidence at all that the increase in production **resulted** because the price dropped. The increase in production may well have occurred anyway and might very well been greater had the price not declined.

The economist has a pet phrase he uses in situations such as this. It is "other things being equal." The trouble is that other things are never equal. Therefore, measurement of the effects of price changes is extremely difficult. This is no reason for assuming, however, that in the aggregate the response to price changes is illogical.

If all dairy farmers' businesses were in adjustment to existing technology, **if** the prices of grain, other feeds, labor and other cost items remained unchanged, **if** the prices of beef cattle, hogs and products of other alternative agricultural enterprises along with costs in these alternative enterprises remained unchanged, **if** all dairy farmers were in the stage of life where they were making decisions on the basis of economic alternatives, **if** there was no change in the prospect for getting jobs outside of agriculture, and **if** all farmers knew that a change in price was to be permanent and not temporary, then we might be able to measure with a great degree of accuracy the effects of price itself. These things are never all equal and therefore we must depend on broad aggregate measures of price effects.

One of the better evidences of the longer time effects of price on production has been the regional production changes since World War II. Milk production in the Northeast —where prices have been held at favorable levels relative to prices of other farm products— has increased at a somewhat more rapid rate than in most other parts of the United States. Much the same has been true in Minnesota, Wisconsin and Michigan, where alternative opportunities in the production of other agricultural products are not great.

Production Down

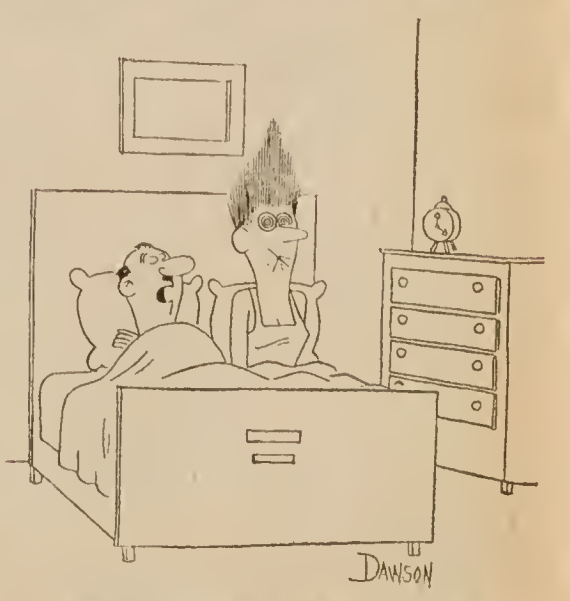
At the same time, milk production has decreased in those areas where there have been opportunities to shift to other agricultural products and where prices for milk have been less favorable than for some livestock products, particularly beef. In the areas producing milk principally for use in butter production, milk production has declined. This has been true in states such as those in the Corn Belt and Western Plains.

My observation of production changes which occurred in 1952 and the immediately following years are that when livestock prices dropped and dairy product prices were supported, the downward trend in milk production in the Corn Belt States was checked. Last year, the price increases resulting from higher price supports appear to have increased milk production particularly in those areas where milk production had not been on the increase.

To me it seems to be a serious error to believe that price has a reverse impact upon production. On the other hand, one needs to recognize that the effect of price change is frequently camouflaged by other forces which continue to be at work. Also, one needs to recognize that individual farmers, because they represent different situations, make different responses to a change in price. Some may even increase production for a short time when prices fall. Nevertheless, price **does** seem to have an effect on the number of farmers going out of business, the rate at which new technology is adopted, and the long-run adjustments which individual farmers make in their rate of milk production.

The success of Mohawk Airlines stems largely from the tailoring of its service to the transportation needs of business and industry in New England, New York State and west to Pittsburgh, Cleveland and Detroit.

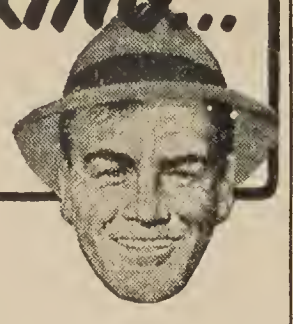
MOHAWK AIRLINES INC.



"Electric blanket short again, Emily?"

I WAS JUST FIGURING...

—by Cy Watkins



How Are Your Layers Doing?

I hope they're going great guns. But if you're having a little trouble, or if you've had trouble in the past, I'd like you to consider the benefits of the Watkins Layer Program. It may help you head off what I call the Winter Laying Slump and it may save you a lot of money.

If you've bought, raised and housed good birds, and if you manage 'em carefully, you ought to be getting production right now of over 70%. (Some of you may even be in the high 80's.) Your aim this season should be to keep 'em up, prevent a slump . . . and do it at a reasonable cost.

So let's talk about what usually causes a bird to slump, and how the Watkins Layer Program can help prevent it.

Slump Due to Malnutrition

Most layers will reach their peak production right about now, and then fall off . . . because they aren't getting the necessary nutrients in their feed to make all the eggs they're bred to give. They'll reach their peak, even on a "cheater" feed, because they can draw on reserve nutrients in their body for a while. But they can't **hold** high production on a "cheater" feed because the body reserves soon run out . . . and production drops.

On the Watkins Program, your high producing layers **will get** the nutrients they need to continue high production . . . month after month . . . the necessary amino acid balance, the major and trace minerals in balance and the vitamins they need, in balance.

Slump Due to Disease or Sub-Clinical Deficiency

When a layer drains her body reserves, as she will do on a deficient ration, she's an easy target for all kinds of disease. You can help her keep her condition up by making sure you put back into her everything she "lays" out.

But the worst kind of trouble is the sub-clinical deficiency which is not really a disease at all. When a layer is suffering from a sub-clinical deficiency of an essential nutrient, she doesn't look sick. She just doesn't do well. She wastes feed. Production drops. And you lose.

This is especially costly, exactly because the birds don't **look** sick, so the layer operator doesn't take action. He goes right ahead, pouring feed into birds that aren't in a condition to make good use of it.

On the Watkins Program, your birds **do** get the nutrients necessary to keep them perking . . . the amino acids, the minerals and the vitamins. And you can feed this Watkins recommended ration at a reasonable cost, because you can use your own homegrown grain, locally purchased proteins and the special MINeral-VITamin pre-mix, Watkins MIN-VITE for Layers.

Talk it over with your Watkins Dealer, next time he calls.

WATKINS PRODUCTS, INC. NEWARK, N. J.

Readers Tell Us!

LOST CAUSE

To continue a fight for the survival of our free enterprise system as many of us knew it, is a fight for a lost cause. We have already passed the point of no return.

We can, however, fight for certain basic principles such as sound or comparatively sound currency, by holding down the national debt. It is, though, a misnomer to call it a debt, for who is now naive enough to believe it will ever be paid? It is therefore a means of decreasing the value of the dollar If it must be done, why not then admit that we must reduce the value of our currency each year because we can no longer pay our way even in prosperous years?

An understanding of what is happening should make the consequences easier to bear and might in some small way influence the end result.

This is not a stable condition. We are, in my opinion, undergoing a transition from a free enterprise system to a welfare state. The latter is being subsidized by the former which it is destroying. When this destruction is complete and the welfare state has to carry itself, the pinch will really be felt. Let us not forget the moral of the story of the goose that laid the golden egg.

The illusion of prosperity which is created by the breaking down of capital to finance the transition can be too appealing if the end result is ignored. I believe that the time has come for everyone who has a desire to preserve our way of life to become more active in fighting for the cause

—Harland M. Poyer, Ithaca, N. Y

APPRECIATION PAYS

Editor's Note: Here's a portion of a letter from a farm wife that I'm sure speaks for all the women who do so much to keep the farm business running:

"You might drop a reminder to our farmer husbands that if they want to keep their wives being good secretaries, drop them a compliment or take them out to dinner. It will more than pay off, 'pennywise.'"

A BOUQUET!

We are one of your newer subscribers to the AMERICAN AGRICULTURIST, and we have been impressed generally with the conservative content of your magazine. We feel that this is the side of the agricultural problem that is not too often heard; and for that reason, here at WMUU and WMUU-FM we have tried to present the conservative side of the agriculture scene.

In this regard we would like your permission to use your editorials in connection with our farm programs. Naturally, we will give full credit for any material used. — *Dick Dorwald, Radio Station WMUU, Greenville, S. C.*

RACCOON BARRIER

I note a letter in one issue of your magazine asking how to keep raccoons out of sweet corn. After we put a six-inch border of lime around our patch of sweet corn, we were not troubled again. Renew after a rain.—*Mrs. J. T. Beal, Exeter, N. H.*

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There'll be a Bargaining Agency Milk Marketing Conference in your area. Interested in attending? Write Robert L. Wiggans, Education Director, 527 S. Warren St., Syracuse 2, N. Y.

METROPOLITAN COOPERATIVE MILK PRODUCERS BARGAINING AGENCY, INC.

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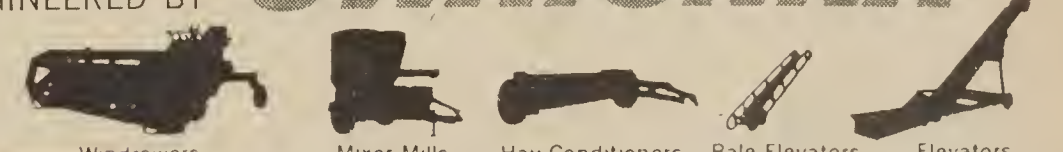
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KEEP YOUR COWS ON

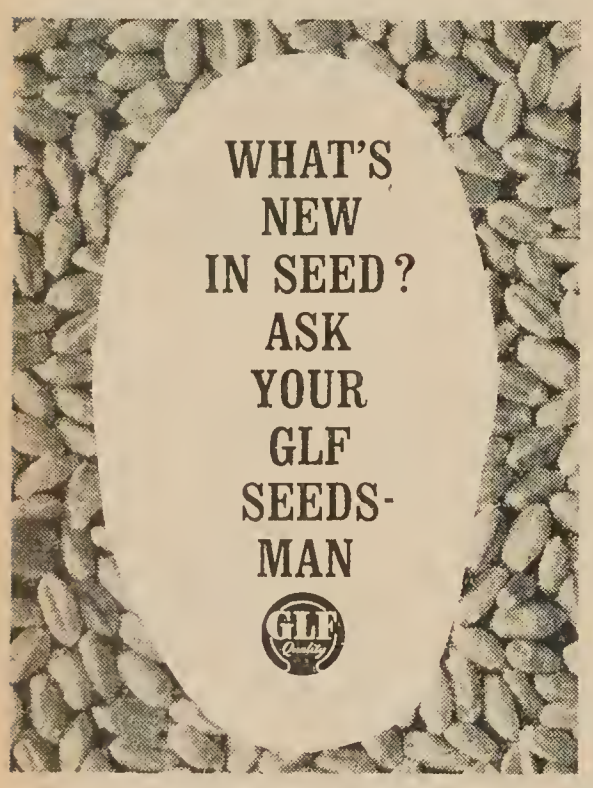
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Feed for Profits

(Continued from Page 1)

of the stage of lactation throughout the whole year and across the board with little regard to the ability of individual cows. This, of course, is a waste of feed and a loss of potential production because: (1) cows with low potential production just do not give enough additional milk to warrant the extra grain. (2) most cows are apt to be overfed toward the end of their lactation. and, (3) most important, the high-producing cow that really needs more feed is short-changed severely at the early part of her lactation.

In fact, many cows would give much more milk even if no more grain were being fed in the total lactation if the grain were given at the right time. For example, we had a herd last year in Berkshire County that had nine of its cows averaging 70 pounds of milk on their first DHIA test day. On their third month test day, they were down to 56 pounds.

Early Lactation

On a good feeding program, they should have been giving as much then as in the first month. However, this man was feeding only 13 pounds of grain per cow per day in the first month--and 13 pounds per cow per day the third month. He was short changing those cows by 9 pounds a day that first month, yet he was overfeeding each cow the last half of their lactations by nearly 4 pounds per day. Several Massachusetts herds this past year have stepped up their herd production by more than 1,000 pounds of milk per cow just by feeding more grain to their high producers in the **early** part of the lactation.

Further evidence of what this means comes from another dairyman in Worcester County. Eight of his cows averaged 71 pounds of milk per day in their first month, 78 in the second, 76 in the third, and 70 in the fourth. He fed nearly as much grain to these 8 high producers as was needed—18 pounds per cow the first month, 21 the second, 20 the third, and 20 the fourth—and his roughage was about the same as the dairyman I mentioned in Berkshire County, the same breed and somewhat similar breeding.

Mr. Worcester County fed from the first through the fourth month about 4,320 pounds more grain to the group of eight cows than did Mr. Berkshire, but they produced about 93 00 pounds **more** milk! With grain at $4 a hundred and milk at $5 per hundred this would be $292 income over the cost of the extra grain fed. Excellent pay!

Of course, there are other factors to consider—such as, would Mr. Berkshire's cows respond to such feeding, do his cows have, the production potential, and does Mr. Berkshire have the management ability, etc.? Research and experience tell us the chances are good that his cows **do** have greater potential.

We recommend "feeding according to production needs." Why? Because, if the cow is short of nutrients, she will have to draw upon her body reserves. Thus, such cows will lose weight or drop in production--or both. But even if the cow can maintain her production by drawing on her body reserves, she is far from being as efficient. The process of taking nutrients to put on body fat and flesh and then convert these back into milk is only about 40 percent as efficient as direct conversion of nutrients into milk.

Health Effects

Until recently, many dairymen were reluctant to feed high levels of grain because they believed that such a practice would make mastitis worse, cause udder edema, and tend to make cows go off feed.

Research studies on the effect of high grain feeding on health have **not** shown that either high grain feeding or high protein concentrates aggravate mastitis. At Michigan State, "Shorty" Huffman fed 17 pounds of 43 percent protein cottonseed meal per day to cows at the peak of their lactation along with 13 pounds of corn meal daily--and observed no adverse effect on mastitis incidence. Similar findings were reported by investigators at Penn State where 22 cows consumed an average of 21.6 pounds of grain per day throughout the lactation period Some cows readily ate 35 pounds or more of grain daily during the peak of production.

At the University of Maryland cows have been fed 16-18 pounds of grain per day for 40-50 days before calving and continued until the udder swelling disappeared, but this did not increase the amount of udder edema. However, it is desirable to make grain feeding and other feed changes gradually to avoid throwing cows off feed or cause a possible drop in production.

Do dairy cows "burn out?" By this, some dairymen refer to a cow that, after freshening, produces a great deal and then "goes down hill." She is usually thin—skin and bones—and some say it's because she worked so hard she just "burned out." Actually, **you can't burn a cow out by feeding her too much;** she can't produce more milk than her inherited ability.

Feed her so she can produce all the milk she was bred to produce. You see, the cow at freshening has the internal stimulus for high production. But if we don't feed her what she needs to produce, she will tend to drop back production commensurate with the level of feeding, or go thin, or do both.

Borden Ellis of New Mexico University says: "Why do fires burn

(Continued on Opposite Page)

Suggested Grain Feeding Table

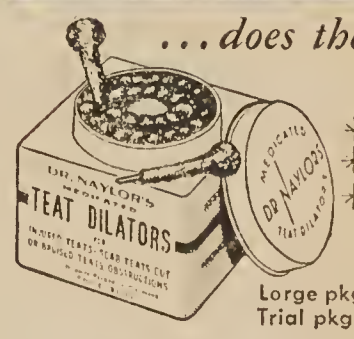
Rate of roughage consumption--pounds good hay equivalent per 100 pounds live weight	Feed 1 pound of grain for each 2½ pounds of milk above the amount given below.		Feed 1 pound of grain for each 2 pounds of milk above the amount given below	
	Holstein	Ayrshire Brown Swiss	Guernsey	Jersey
Liberal (2½ lbs. or greater)	20	18	15	12
Moderate (2 lbs.) or fair hay fed liberally	12	10	8	6
Light (1½ lbs. or less) or poor hay	0	0	0	0

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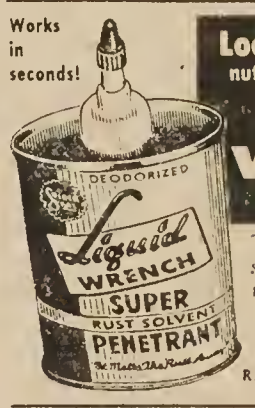
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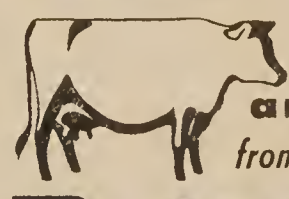
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(Continued from Opposite Page)

out? Because **they run out of fuel;** the same reasoning applies to the cow." We say, feed her to her potential.

Many Methods

There are many ways of feeding grain. One is to feed them all alike regardless of needs; this is by far **too costly** these days. Another is by the rule of thumb—one pound of grain to so many pounds of milk, such as 1 to 4 or 1 to 5. This is apt to overfeed the low producers and definitely underfeed the high producers.

Another plan that some follow is not to feed over 12 pounds or so of grain a day to any cow. Even with good roughage, cows producing more than 50 pounds of 3.5 percent fat milk will be shortchanged under that limitation, and soon after freshening they will drop production back to around 50 pounds—in line with the level of feeding. Then there are the grain feeding tables which consider the breed, size of the cow, quality and quantity of roughage fed in general, and the production. These grain tables are very practical guides and the best we had until DHIA Central Processing came along.

But, it is often more profitable to feed even heavier than the indicated Central Processing grain figures. This is especially true when preparing the cow for the big production job by feeding her well during the last two weeks before freshening and then follow challenge feeding after calving. This means weighing the milk weekly or more often, weighing the grain, and adjusting for body weight changes.

As a guide for those dairymen not on DHIA, grain tables can serve as a better guide than grain-to-milk ratios. Briefly, these grain feeding tables work as follows:

What is the most profitable combination of grain and roughage? This will vary according to the sections of the country. In some areas, like Northern New England, nutrients in roughage can be produced at considerably lower cost than in Southern New England.

Do you know what it costs you to produce the feed nutrients on your farm? Usually, it is said that a dairyman can produce the nutrients cheaper than he can buy them. However, the situation has changed some. Expenses of producing and harvesting are often higher now, while by-product feeds and grains are often lower than in former years. To answer this question, check on your costs and make some comparisons. For details, check the cost of 100 therms of net energy in feeds with your County Agent.

Our studies have shown that purchased hay (this year high priced in Southern New England) is often a more expensive source of nutrients than certain supplementary feeds such as citrus pulp or hominy. Also, with a high investment on **some** farms in machinery and equipment, hay driers, balers, conditioners, rakes, mowers, tractors, trucks, and conveyors, the nutrients in the hay produced on the farm cost more than the nutrients available in the feeds on the market.

Farm Pesticide Facts

(Continued from Page 3)

measures must meet is: do they work? Thus, for the foreseeable future we must continue to rely heavily on chemical methods to cope with critical pest problems.

Can pesticides induce cancer or cause gene mutations?

This is an idea that flourishes better in the realm of speculation than in fact. Based on the same "evidence" in this area one can project a given assumption to mean almost everything, or, conversely, almost nothing.

The list of substances that have been identified as carcinogens (cancer-producing) is very large. The number known to be mutagens (mutant-producing) is smaller, but includes such well-known chemicals as caffeine and, possibly, table salt. The significance of such ratings of chemicals in terms of actual hazards to humans in normal exposure is a much-debated subject among scientists.

None of the synthetic insecticides in use today is either carcinogenic or mutagenic. As a matter of fact, any that should be judged to be carcinogenic must, by present law, be given a zero tolerance.

What should be done?

The public can do two things to bring about a better program of pest control. One is to learn more about all aspects of this important subject. The other is to support research, especially on new approaches in which human health hazards are nonexistent or minimal, and to support programs that try to establish the facts about health hazards.



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PUBLISHING AND CLOSING DATES

January Issue	Closes Dec. 5	March Issue	Closes Feb. 5
February Issue	Closes Jan. 5	April Issue	Closes March 5

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THERE'S EXTRA QUALITY in Sunnybrook Started Pullets, reared on separate farms under finest conditions. Over 25 years of experience in the field. Two weeks of age up to ready-to-lay, all year 'round. Dominant Leghorns, Harco Sex Links, Warren Sex-Sals, other famous strains. Write for prices. Added discounts for advance orders. Sunnybrook Poultry Farms, A. Howard Fingar, Box 106, Hudson, N. Y.

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HEISDORF & NELSON pullets. Day-old or ready-to-lay. Wallace H. Rich & Son, Hobart, N. Y. Phone LE-8-3401.

MEADOW VIEW CHICKS—Fagan-Rapp Line cross Leghorns. Harco Rhode Island Reds, all Harco Sex Links, Lawton Buff Sex Links, Peterson Cornish Cross meat birds. Hatch every week. N.Y.-U.S. Approved. Pullorum clean. Meadow View Chicks—Henry M. Fryer, Greenwich, N. Y. Phone MY 2-7104.

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There's a proven Hall Brothers strain for every kind of poultry operation. For brown eggs: Hall-Harco Sex Links or our R. I. Reds. For white eggs: Arbor Acres Queens, Darby Strain Cross, or new Demler Regals. For eggs and meat: Golden-Buff Hallcross or Silver Hallcross. For meat: Vantress or Peterson Cross. Fast, guaranteed-live delivery. You must be satisfied. Write for price list to 214 Cook Hill Road.

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EXHIBITION DUCKS — Aylesburys, Buffs, Cresteds Indias, Runners. John Henning, 154 Ridge Road, New City, New York.

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"SNOW-WHITE" white breeders, youngsters. Blue-egg chickens reasonable. Simms, Warwick, N. Y.

NEW ZEALAND WHITE pedigreed meat producing rabbits. Bardy's Rabbitry, East Thompson, Conn.

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RAISE ANGORA, New Zealand rabbits, fishworms on $500 month plan. Free details. White's Rabbitry, Mt. Vernon, Ohio.

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WANTED: FARMS, land, buildings, camps, radius 30 miles Pittsfield in Massachusetts. Atlas Realty Svs., 24 Hamlin Street, Pittsfield, Mass.

$1,500, 3½ ACRES woods, small house, has electricity, 4½ hours from New York City. J. N. Crowell, RD#2, Remsen, N. Y.

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BIG OPPORTUNITY your area. Spare, full time or retirement. Grower, Agent, Dealer. Jim's earnings $8000 three months. Every grower prospect. Internationally used. Campbell's Gro-Green Fertilizer Concentrates. Commissions daily. No investment, experience or deliveries. Free sample, Campbell Company, Rochelle 25, Illinois.

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SENSATIONAL NEW longer-burning Light Bulb. Amazing free replacement guarantee — never again buy light bulbs. No competition. Multimillion dollar market yours alone. Make small fortune even spare time. Incredibly quick sales. Free sales kit. Merlite (Bulb Div.), 114 E. 32nd. Dept. C-74B, New York 16.

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306 ACRE FARM with 9 acres grapes. Part of tillable land in soil bank. For more information contact LaVerne Sisson, R.D. 2, Penn Yan, New York.

ONE OF THE BEST! Retiring owner offers outstanding 306-acre New York Grade A dairy farm at a most attractive price. 34 excellent milk cows, 12 heifers, near-new tractor, 2 other tractors, complete line fine machinery, feed on hand included! Buildings alone insured for $46,000. Nice 11-room house, 8 bedrooms, 2 baths, basement. Good 110-ft. barn, milk house, silo, poultry house, big machine shed. 75 acres cropland, 30 alfalfa, 81 woods, 120 pasture for about 75 head, stream, springs, barbed wire, marketable timber, some fruit. Income over $17,000 last year. Beautiful location, right at the edge of the picturesque Catskill Mountains, on blacktop road, pick-up routes, 2 miles town. Offered at $48,000 complete, only $15,000 down. Big free illustrated Fall-Winter catalog, bargains coast to coast. United Farm Agency, 501-AA Fifth Ave., New York 17. YUkon 6-1547. (Open 9 to 5 weekdays).

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FARM WANTED: 50-100 acres early soil on highway with suitable location for developing retail vegetable and berry outlet. Box 514-WL, American Agriculturist Ithaca, New York.

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NEW MASSEY-FERGUSON and Cockshutt equipment. Also largest selection of good used tractors and machinery in Northern New York State. Tractors from $65.00 up. Write or phone. Wanted AC balers, will buy or trade. Will deliver. Phone Lowville 85; Ingersoll's Farm Supply, Martinsburg, New York.

BARN CLEANERS, silo unloaders, engineered by Patz. New different bunk feeders, manure stackers, replacement chains for all make cleaners, low cost, easy terms. Nold Farm Supply, Rome, N. Y. Willard Howland, Southampton, Mass.

SILO UNLOADER for 18 foot silo. Call or write Philipp Wolff, Woodbury, Connecticut 263-2294.

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FARM BUILDINGS for all purposes, low cost, easy terms. Nold Farm Supply, Rome, New York.

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(Continued on Opposite Page)

ADDITIONAL CLASSIFIED ADS

(Continued from Opposite Page)

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CANVAS TARPAULINS—Direct from factory—nylon reinforced eyelets, medium weight. Cut size—7x9 feet, $5.67; 8x12 feet, $8.64; 12x14 feet, $15.12. Write for complete list of sizes and samples. Our 67th year. Eureka Tent & Awning Co., Inc., Binghamton, New York.

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EARN MONEY SEWING our products. Exciting details free. Elizabeth Thompson, 21 High, Brookline 46, Massachusetts.

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FARM-POND-FISH-Traps. Traps for birds; animals. Shawnee, 3934A, Buena Vista, Dallas 4, Texas.

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OLD WINCHESTER RIFLES—any old guns. Kindly send pencil outline, serial number, condition, your telephone and fair price for payment at once. Sidney Stein. 10 Meacham Ave., Elmont, L. I., N. Y.

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MISCELLANEOUS

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PLAYER PIANO WANTED—Do you have an old pianola in good condition for sale? Albert Russomanno, 193 Orchard Street, White Plains, New York.

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Beef Cattlemen's Short Course

THE 12TH annual Beef Cattlemen's Short Course, open to persons from any state, is planned for the week of January 7th at Cornell University. A number of topics will be thoroughly discussed, including the economics of beef production, animal health, feeding, and management.

For the second successive year the New York Beef Cattlemen's Association will hold its annual meeting and banquet the last day and evening (January 10) of the Short Course. Professor George Litton, popular agricultural leader and head of the Department of Animal Husbandry at Virginia Polytechnic Institute, will deliver the main address at the banquet. Another highlight that evening will be the honoring of New York's outstanding 4-H beef club member for 1962 and announcing the recipient of the "Cattleman of the Year" award.

Applications for enrollment or other information pertaining to the program can be obtained from M. D. Lacy, Morrison Hall, Ithaca, N. Y. Enrollments will not be necessary for those attending only the Beef Cattlemen's annual meeting and Short Course program on January 10.

MISCELLANEOUS

AMERICA'S LARGEST SONG and recording studio invites writers of words to submit material for possible use for songs and records. No obligation. Send material to Five Star Music Masters, 150 Beacon Bldg., Boston, Mass.

QUALITY RUBBER stamps-three lines, $1.00; four lines, $1.30; notary pocket stamps, $1.75. Acadia Stamps, Box 63, Hudson, New York.

FREE! How to save Income Tax, increase Social Security benefits. Taxsaver. Box 355, Broken Arrow, Oklahoma.

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Dates To Remember

December 2-6 — NJVGA Annual Convention, Hotel Deauville, Miami Beach, Florida.

December 4-6 — New Jersey State Horticultural Society Annual Meeting, Atlantic City.

December 4 — New York State Council of Farm Cooperatives, Syracuse.

December 4-5 — Poultry Servicemen's Clinic, Riley-Robb Hall, Cornell University, Ithaca, N. Y.

December 4-6 — New Jersey State Grange Annual Meeting.

December 5-6 — Poultry Servicemen's Clinic, Cornell University, Ithaca, N. Y.

December 10-13 — American Farm Bureau Federation Annual Meeting.

January 8-12 —Pennsylvania Farm Show, Harrisburg.

January 15-17 — New York State Horticultural Show, Rochester.

January 16-19 — State Farm Bureau Annual Meeting, Baltimore, Md.

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Now! You can get the fast relief you need from nagging backache, headache and muscular aches and pains that often cause restless nights and miserable tired-out feelings. When these discomforts come on with over-exertion or stress and strain—you want relief—want it fast! Another disturbance may be mild bladder irritation following wrong food and drink—often setting up a restless uncomfortable feeling.

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In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

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The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

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MRS. ERBIN—CHAMPION PIE BAKER!

By Home Editor Augusta Chapman



—Photos: C. Hadley Smith

American Agriculturist Editor Gordon Conklin and State Grange Master Russell Curtis at State Grange session, preceding announcement of the winners.



(From left to right) American Agriculturist Home Editor Augusta Chapman congratulates five of the winners: Mrs. Thelma Erbin, Mrs. LaVerne Buckley, Mrs. Anna Nichols, Mrs. Mildred Robinson, and Mrs. Florence Pickett.

APPLE PIES, and more apple pies — in fact, 53 of them! That was the sight that greeted us when Editor Gordon Conklin, Home Department Secretary Sue Hastings, and I arrived at Hotel Syracuse on Tuesday morning of the annual session of New York State Grange. The pies —all made by county winners—had been brought or sent to Syracuse for the exciting finish of the big statewide baking contest, sponsored jointly by the Grange and American Agriculturist.

It took four well qualified judges (Mrs. Margaret Potter and Mrs. Esther Twentyman from Cortland County, and Mrs. Frances Todd and Mrs. Roselle Kolar from Tompkins County) almost six hours to pick the fifteen winning pies. Finally, however, judging was over and the suspense ended when sealed envelopes were opened, revealing the No. 1 winner as Mrs. Thelma Erbin, Star Route, Lowville, N. Y. Mrs. Erbin is a member of Petries Corners Grange in Lewis County.

I learned that Mrs. Erbin was at State Grange as a delegate, so phoned and asked her to come to my room. When I told her that she was the champion Grange apple pie baker in New York State, she sat down quickly and said, "You know, this is really funny—we live with my husband's mother who does most of the baking, and I very seldom make a pie. Wait until my family hears this!" You will find Mrs. Erbin's apple pie recipe, just as she gave it to us, on page 28.

As the first place winner, Mrs. Erbin had her choice of the four grand prizes and chose the Magic Chef Gold Star Award LP-Gas Range. She will also receive $25 from American Agriculturist and $3 from State Grange, plus all of the grocery prizes listed in this article.

We were happy to find out that the No. 2 winner, Mrs. La Verne Buckley, Lenox Rd., Collins, N. Y. (Erie County), was also at State Grange and would be able to stay over for the official announcement of the winners on Wednesday morning. Mrs. Buckley is a daughter-in-law of the Mrs. Thomas Buckley who won second prize in the bread baking contest last year. She, too, received her first choice of prizes, and won the Fabulous 400 Tappan Electric Range. In addition she will receive $23 in cash awards, plus the grocery prizes given the top ten winners.

Mrs. Anna Nichols, Mumford, N. Y., a member of Caledonia Grange in Livingston County, was third-place winner and won the Monarch "Modernique" Electric Range and Cabinet Base. When I phoned Mrs. Nichols to give her the good news, she said she was afraid she wouldn't be able to come to Syracuse. But on Wednesday, when the winners were announced, Mrs. Nichols was there! Her two daughters knew this was a really "big" occasion and brought Mrs. Nichols to Syracuse to receive congratulations from all her fellow Grangers.

A sixteen year old high school senior, Gloria Finch from West Oneonta, N. Y., was winner No. 4, and will receive the picnic set, consisting of an 8-foot Redwood table with matching benches and a charcoal grill, awarded by Cooperative G.L.F. Exchange. Gloria was unable to come to State Grange because of a National Honor Society meeting at school. Right up to the last minute, I hoped that her school principal would make an exception and let her miss the one meeting. I couldn't help being proud, however, that Gloria put a legitimate obligation ahead of something which certainly would have given her a great deal of personal pleasure. This quality is lacking in many of our young people these days.

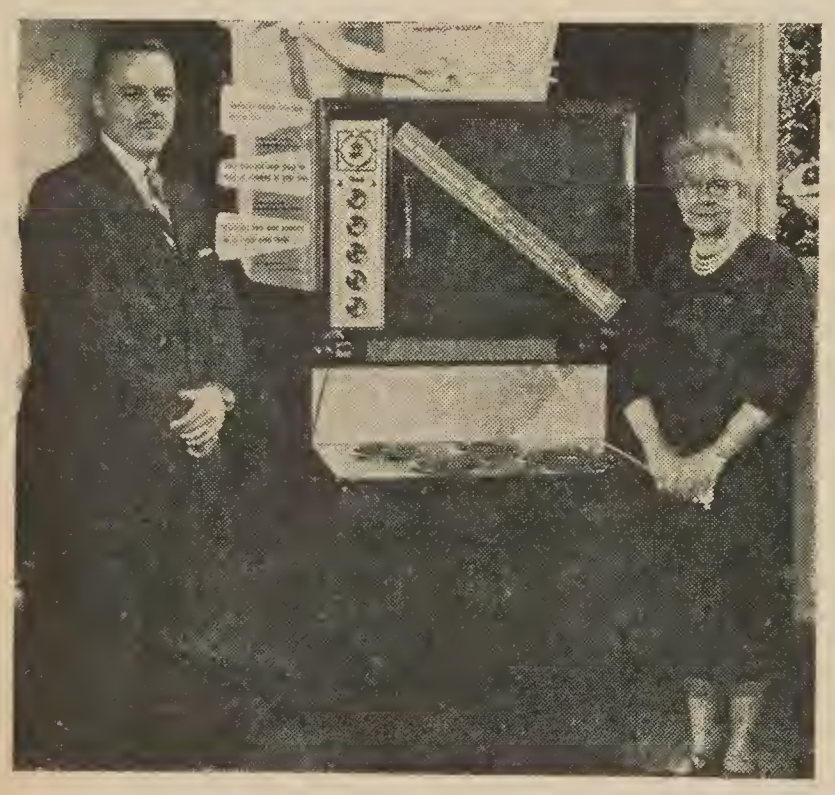
Total cash awards for the contest amounted to $266 and included a $3 prize from State Grange to each of the 53 finalists and $107 from American Agriculturist, which was distributed among the top 15 winners. Also, each of the top ten winners received **all** of the following prizes awarded by five AMERICAN AGRICULTURIST advertisers:

One case (24 cans) Comstock Pie Sliced Apples and 1 case (12 cans) Comstock Assorted Pie Fillings from Comstock Foods, Inc.

(Continued on Page 26)



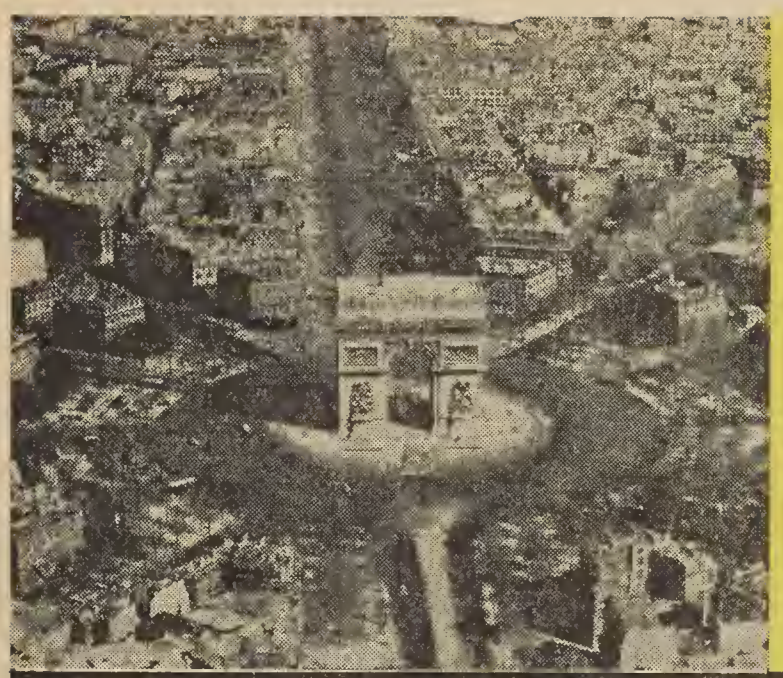
First prize winner, Mrs. Thelma Erbin, Lowville, and the Magic Chef Gold Star Award LP-Gas Range which she received from Magic Chef Inc. At right is Home Editor Augusta Chapman.



To winner No. 3, Mrs. Anna Nichols, Mumford, went the Monarch "Modernique" Electric Range and Cabinet Base. At left in picture is Monarch Range representative, Harold E. Tomlinson.

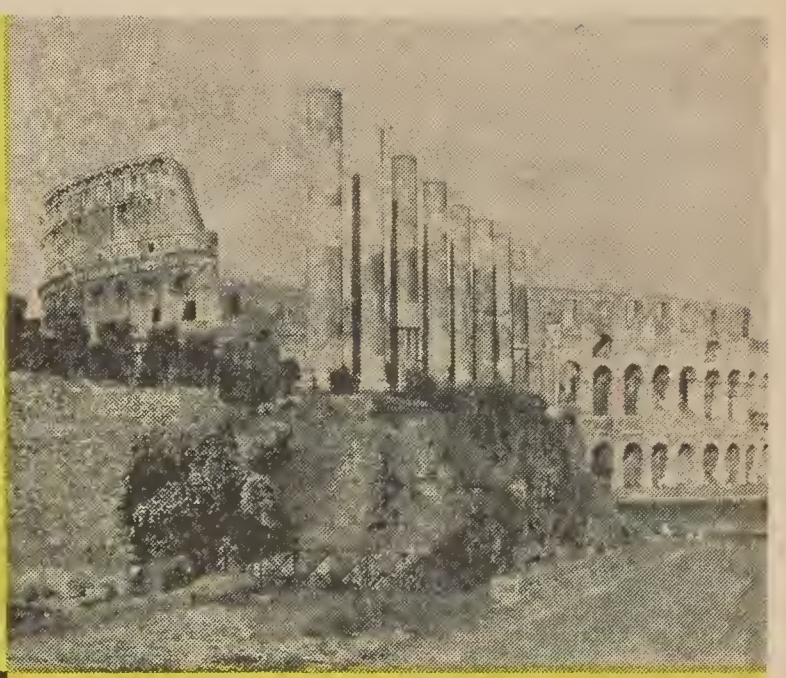
Mrs. LaVerne Buckley, Collins, the No. 2 winner, chose the Fabulous 400 Tappan Electric Range as her grand prize. Here she receives congratulations from company representative, John Mosey.





FRANCE—The Arc de Triomphe dominates the Champs Elysees in Paris which is also known as the "city of light" because of lavish illumination of its wide arteries and numerous monuments and because of its intellectual leadership.

THE RIVIERA—Next, you'll visit Cannes with its mild Mediterranean climate; Grasse, famous perfume center; Nice, leading resort on the French Riviera; Monte Carlo, where "Grace and the Prince" reside; San Remo with its old, upper town and its modern city along the shore.





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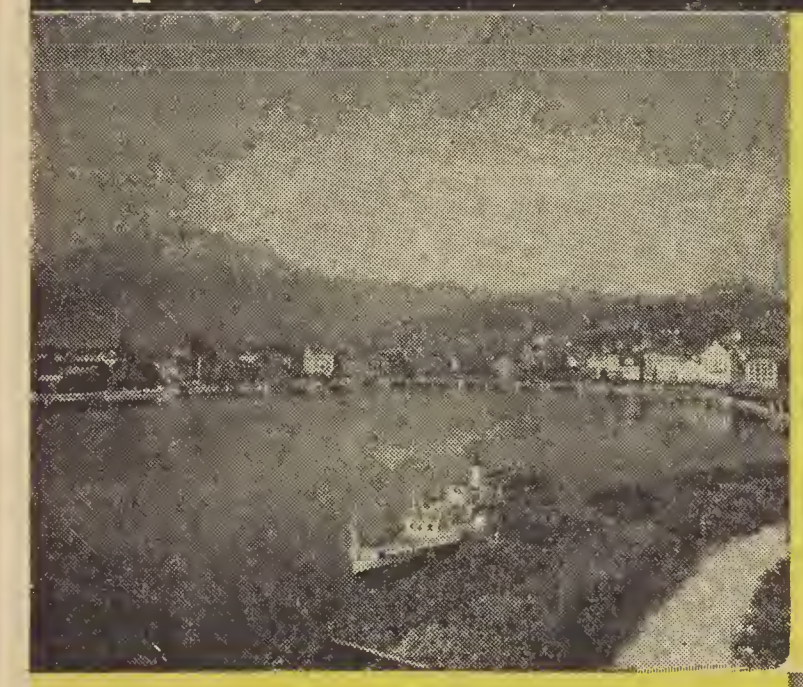
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SWITZERLAND—You'll long remember the Alps, remarkable for their magnificent scenery enhanced by many glaciers and lakes; Lucerne, noted for its fine mountain views and located on Lake Lucerne (the lake is also called Lake of the Four Forest Cantons); Zurich, an international intellectual center and the largest city in Switzerland as well as the most important economically.



HOLLAND—In this "land of windmills" that exports about 90% of its flower bulbs and 50% of its vegetables, you'll visit Amsterdam, seat of an important stock exchange and of most Netherlands commercial, industrial, banking and insurance companies; Aalsmeer, site of the giant flower auction where flowers are sold for shipment throughout the world; Volendam, on the banks of the Zuider Zee where people still dress in traditional attire; the fishing village of Monnickendam; The Hague, one of the most beautiful cities of all Europe and famed for its Peace Palace; Scheveningen, popular North Sea resort; Rotterdam, Europe's most important seaport.



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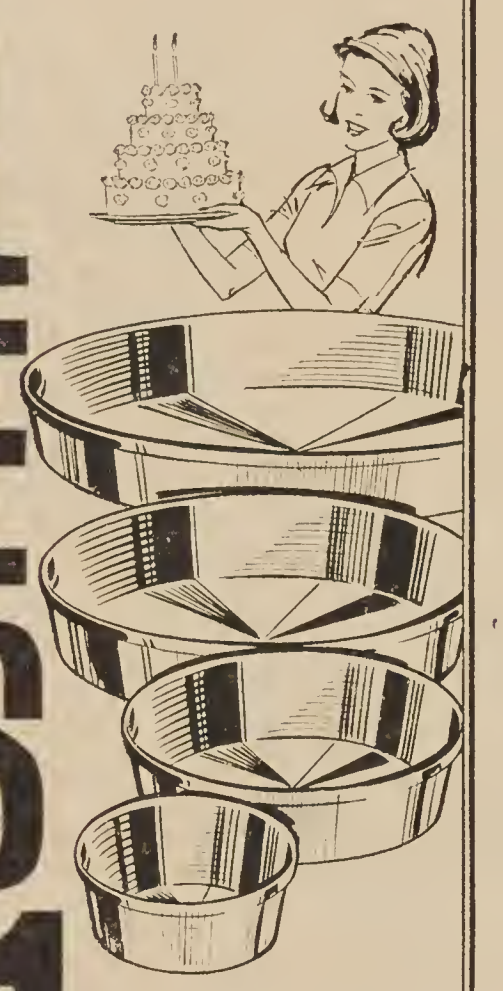
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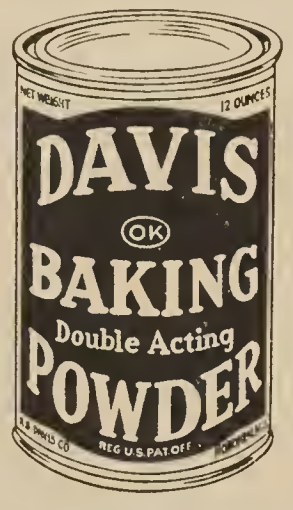


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Cake Pans, Dept. B,
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CHAMPION PIE BAKER

(Continued from Page 24)

Five pounds each of the following G.L.F. products: Cake, Quality Pastry Flour, Pancake Mix, Quality Patent Flour, and Medium Rye Flour from Cooperative G.L.F. Exchange.

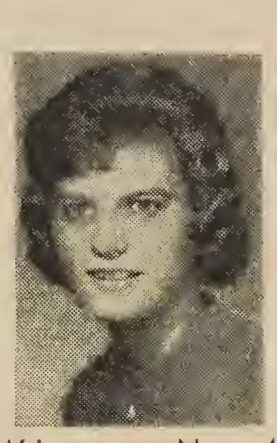
A 5-pound, naturally aged Dairylea Cheddar Cheese from Dairymen's League Cooperative Assn., Inc.

A 24-ounce can of Davis Baking Powder; 12-ounce can of Cocomalt, Creamy White Swel and Creamy Fudge Swel; twelve 12-ounce bottles of Brer Rabbit Molasses; one case of MY-T-Fine Lemon Pie Filling; plus recipe folders and Quick-Mix Charts from Penick & Ford, Ltd., Inc.

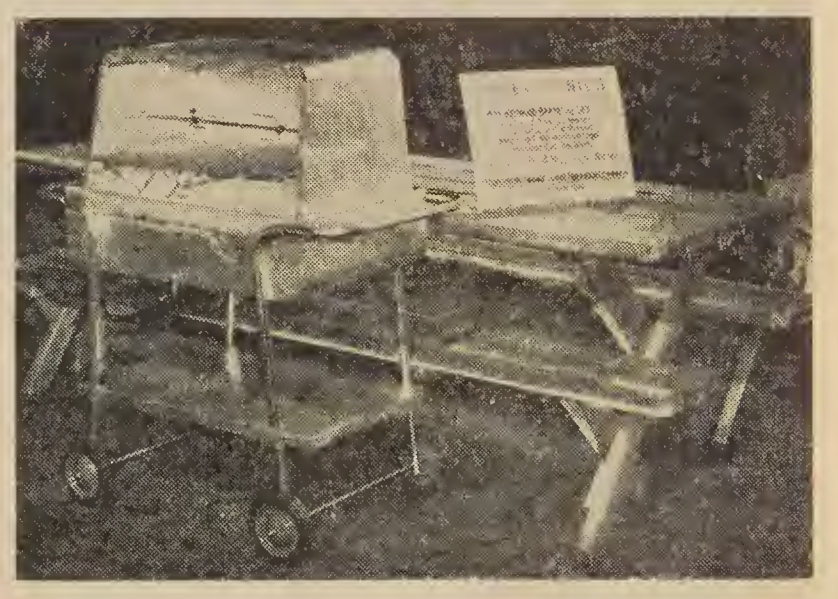
A bushel of apples (winner's preferred variety), an Apple Slicer-Corer, and a framed scroll bearing a tribute to apples from Western New York Apple Growers Assn., Inc.

Mrs. Eleanor Vanderbeck, Rochester, N. Y., Chairman of the 1962 State Service and Hospitality Committee, and I directed the contest, which began just about a year ago with elimination contests. first in the Subordinate, and then in the Pomona Granges. Assisting Mrs. Vanderbeck and me were the two other members of the State Committee, Mrs. Dorothy Scofield, Otego, N. Y., and Mrs. Helen Hadlock, Hammond, N. Y., and almost 1,000 Subordinate and Pomona chairmen.

Next year's American Agriculturist-Grange Baking Contest has already been decided on. It's to be a gingerbread contest, and we hope all Grange members—men and women—will plan to enter. This yearly event is fun, and it's a terrific thrill to be one of the winners. The new contest will start in January, and you can find out all about it from your Service and Hospitality chairman. Also, watch for the announcement of the contest, with score card and full details, in the January issue of AMERICAN AGRICULTURIST.



Winner No. 4, Gloria Finch, West Oneonta, won this picnic set, awarded by Cooperative G.L.F. Exchange.



15 TOP WINNERS

1. Mrs. Thelma Erbin, Lowville, Petries Corners Grange, Lewis Co.
2. Mrs. LaVerne Buckley, Collins, Collins Center Grange, Erie Co.
3. Mrs. Anna Nichols, Mumford, Caledonia Grange, Livingston Co.
4. Miss Gloria Finch, W. Oneonta, West Laurens Grange, Otsego Co.
5. Mrs. George Saxton, Sr., Auburn, Owasco Lake Grange, Cayuga Co.
6. Mrs. Edward Bradley, Macedon, Macedon Grange, Wayne Co.
7. Mrs. Bertha Burckes, Reading Center, Reading Grange, Schuyler Co.
8. Mrs. Roy Lilyea, Penn Yan, Penn Yan Grange, Yates Co.
9. Mrs. Betty Sayward, Willsboro, Adirondack Grange, Essex Co.
10. Mrs. Dorothy Bennett, Selkirk, Bethlehem Grange, Albany Co.
11. Mrs. Clara Case, Fredonia, Fredonia Grange, Chautauqua Co.
12. Mrs. Mildred Robinson, Champlain, Champlain Grange, Clinton Co.
13. Mrs. Raymond Wise, Lorraine, Lorraine Grange, Jefferson Co.
14. Mrs. Florence Pickett, Rock City Falls, Milton Grange, Saratoga Co.
15. Mrs. Margaret Houseman, Palatine Bridge, Palatine Union Grange, Montgomery Co.



Between Grange sessions, dozens of folks paused to look over the prize display in the lobby of Hotel Syracuse. At left in picture is second prize winner, Mrs. LaVerne Buckley. At right two unidentified Grange women sign for free recipe book offered by Comstock Foods, Inc.

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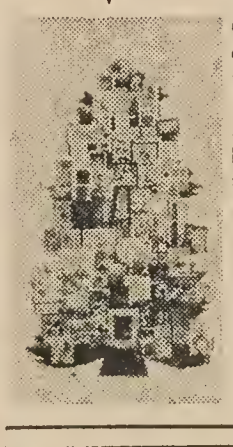
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Were sold in 1961 by members of Sunday Schools, Ladies Aids, Young People's Groups, etc. They enable you to earn money for your treasury, and make friends for your organization. Sample FREE to Official.
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Cut Your Own Tree

By NENETZIN R. WHITE

DECEMBER is the month for sharing, and for onee let's all take a part in the Christmas preparations, instead of just Mother doing the work.

First of all, why not cut your own Christmas tree? If you haven't done this in the past, you've missed a bundle of fun and a lot of good outdoor exereise. Many of you, of course, have your own wood lots where a native pine or hemloek is waiting for you. Or you may have a reforestation area covered with likely subjeets, or a neighbor who will let you cut a tree from his lot for a token fee. Also, many eommercial tree growers will allow you to eut in their plantations on eertain days. Usually you can eut whatever size tree you want for a flat fee.

Eaeh year we find people who still have trouble knowing what to eut. They forget that the pines (white, Scoteh, Austrian, or red) will hold their needles for an indefinite period and ean be safely cut weeks before Christmas. On the other hand, our native hemloek, a beautiful tree when alive, is almost worthless as a cut tree, since its needles start to drop a day or two after it is eut. Spruee trees also lose their needles quiekly and should be eut at the latest possible date. Firs and balsams are similar to the pines, in that they hold their needles a long time, and henee are premium Christmas trees.

From a safety angle, the red pine has been proven the most fire resistant of all our eommon Christmas trees. This is followed by the other pines. The most flammable trees are the spruce and hemlock. It's a good idea, of course, to set the butt of any Christmas tree in a receptaele of wa ter. This helps to prolong color needle retention, and fire resistanee

I think it's a fine thing for a family to cut their own tree, as ehildren will develop a sense of family partieipation. Their holiday spirit is stronger beeause they have a part in the Season's preparations, and they will never forget the fun. I remember going after trees with my parents, later with my teenage and eollege friends, and then with my husband and our ehildren. Now we go with our friends' children and are looking forward to soon being able to take our grandchildren. Every year Christmas seems a little more fun beeause we eut our own tree.

A living Christmas tree is nice and usually can be planted sueeessfully to enrich your border and to provide a family eonversation pieee for years. By law, you cannot dig up a tree from a conservation area, but you can buy one from a loeal nursery. Be content with a slightly smaller tree so the attaehed ball of earth won't break your back.

Any greens, perhaps the bottom limbs from your tree, will add a festive touch inside or outside your house. Also, foundation plants, such as yews or junipers, are always helped by a careful and judieious pruning. The yews (taxus) will give deep, dark green eolored branches, and the junipers will add pale green or silver blue touches. At Christmas, greens are enriehed by the addition of cones, eolored ribbons, and sprays.

I hope you all have a very merry Christmas and a happy New Year!



AT CHRISTMASTIDE

By Edith Shaw Butler

Into the heart at Christmastide
Creep ghosts of long ago,
Faint sounds of sleigh bells tinkling
Across the glistening snow.

And loved ones lost are nearer
To us at Christmas time,
Who light the Christmas candles,
Who hear old carols chime.

For Christmas is a pathway
Across the bygone years
To memories that bless us
With joy akin to tears.

CATALOG

Over 200 Designs

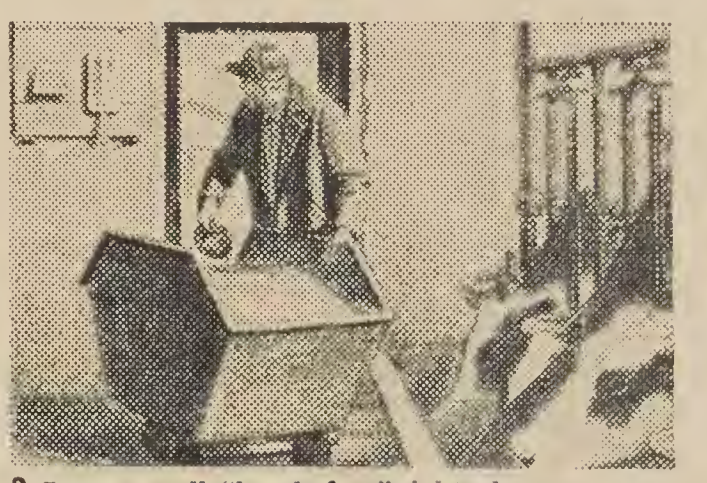


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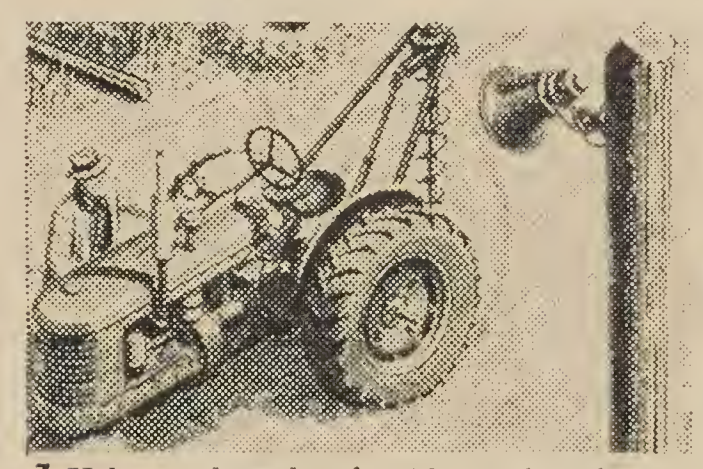
Four Ways the New Farm Interphone Can Save You Hours a Day



1. Saves trips between house and farm buildings. Suppose your wife has an outside call and something comes up she needs to discuss. She ean "hold" the call, talk to you on the intereom eireuit, then complete the outside conversation. Or you can take over the call in the barn, if you wish.



2. Lets you talk "hands-free" right where you are. If your wife calls you on the intereom, you ean answer without picking up the phone, without interrupting your work. This is a very helpful feature around the farm. Or if you want privaey, pick up the phone and talk direetly to her.



3. Helps you hear that ring. You ean hear the telephone ringing over the outside speaker. When your wife answers and ealls you on the intereom eireuit, you ean talk to her over the outside speaker. She ean relay your message to the ealler.



4. Acts as an "ear" in your farm buildings. Each Interphone station is an alert "ear" that listens for disturbances around the barnyard. All sounds are transmitted to the house. Your prompt attention may save animal life or property damage.

You can't possibly cover all the ground in a day that you can cover with new Farm Interphone—in minutes! Farm Interphone ties your whole farming operation together. It's a completely new system that gives you regular telephone service, and intercom service to and from strategically located points around your farm.

With Farm Interphone you can talk and hear over a wide area without taking a step or interrupting your work. Your wife can handle calls and talk with you without running to the farm buildings.

To learn how the new Farm Interphone can save you time (and money, too), get in touch with your telephone business office.

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Part of the nationwide Bell Telephone System

Refrigerator Rolls!

Mix 'em now, bake 'em later— with Fleischmann's high, high-rising yeast



REFRIGERATOR ROLLS *(makes about 24)*

- ¾ cup hot water
- ½ cup sugar
- 1 tablespoon salt
- 3 tablespoons Fleischmann's Margarine
- 2 packages Fleischmann's Active Dry Yeast
- 1 cup warm water
- 1 egg beaten
- 5¼ cups unsifted flour

Mix hot water, sugar, salt, margarine; cool to lukewarm. Dissolve yeast in warm water. Stir in lukewarm mixture, egg, 3 cups flour. Beat till smooth. Add rest of flour, mixing well. Place dough in greased bowl; brush top with soft margarine. Cover tightly with waxed paper or foil. Refrigerate until doubled or until needed (up to 4 days). To use, punch down, cut off amount of dough required and form into favorite shapes. Cover: let rise in warm draft-free place until doubled, about 1 hour. Brush with melted margarine. Bake in 400°F. oven about 10-15 minutes.

1st Prize Apple Pie—Grange Contest

Crust:

- 2 cups flour
- 1 teaspoon salt
- 5 tablespoons lard
- 5 tablespoons Crisco
- 3 to 4 tablespoons water (enough for easy handling)

Sift the flour and salt together into bowl. Rub in the lard and Crisco until like coarse meal. Add water a bit at a time, lightly tossing, until dough cleans bowl. Divide into two portions. Roll one on lightly floured board and place in bottom of tin, covering edge.

Filling:

- 1½ cups apple slices (Spy apples)
- 1 cup less 2 tablespoons sugar
- ¾ teaspoon cinnamon
- ⅛ teaspoon salt
- 3 tablespoons flour (less if apples are not so juicy)
- 1 teaspoon butter

Sprinkle bottom crust with 1 tablespoon flour. Arrange half the apple slices on it, sprinkle lightly with half the salt, cinnamon and sugar and 1 tablespoon flour. Repeat with remainder of slices, salt, sugar, cinnamon and flour. Dot with bits of butter. Cover with second crust, turning edge of top crust under bottom edge. Press together and flute. Slash center to allow steam to escape.

Bake 15 minutes at 400°, then about 45 minutes at 375°.

Editor's Note: Mrs. Thelma Erbin, Star Route, Lowville, N. Y., was the No. 1 winner in this year's American Agriculturist-New York State Grange Apple Pie Contest. The above recipe is the one Mrs. Erbin used for her prize-winning pie, and is printed just as she gave it to us.

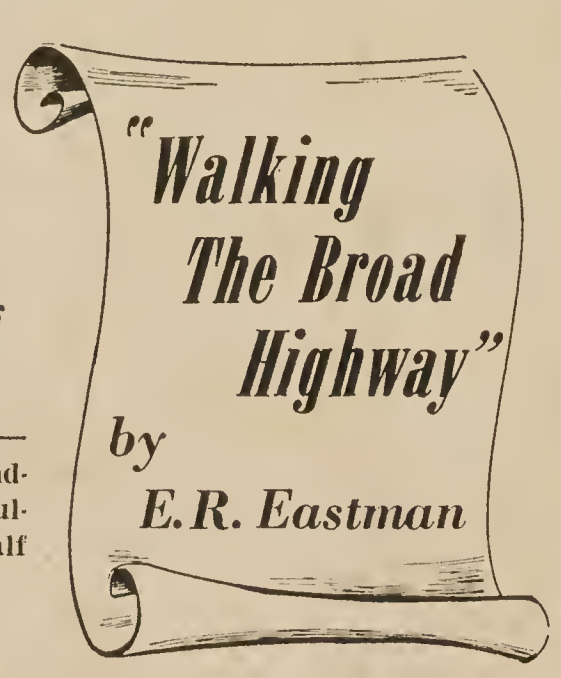


HEIDELBERG IN SPRING: While in Germany, our party will visit beautiful Heidelberg, Germany's famous University City, long famous for its wonderful old castle and student resorts.

Eureka!

We now have a new supply of Ed Eastman's "Walking the Broad Highway"

Just in Time for Christmas Giving



This is the story of the men—and women—behind the tremendous growth of Northeast agriculture that took place the first half of this century. . . .

Intimate details of events in the lives of men who helped build our great organizations, our Extension Service, our milk co-ops, etc., told by a man who lived and worked with them. . . .

AN IDEAL GIFT FOR ALL WHO LIVE IN THE NORTHEAST —ESPECIALLY YOUNG PEOPLE WHO WANT TO KNOW MORE ABOUT THE MEN BEHIND OUR PROGRESS.

American Agriculturist
Box 367W, Ithaca, N. Y.

Please print

Send me, postpaid, —— copies of WALKING THE BROAD HIGHWAY, beautifully bound in extra durable heavy paper at $2.00 per copy. I enclose $——.

Name _____

Address _____ State _____

Use separate sheet of paper if books are to go to different addresses.

Vacation of a Lifetime

HOW WOULD you like to go to Europe? Wouldn't you like to see Paris, the magnificent scenery in Switzerland, castles on the Rhine, the quaint little town of Volendam on the banks of the Zuider Zee where the people still dress in traditional attire; London, Buckingham Palace and the wonderful cities of Rome, Florence and Venice? We've arranged a perfect spring vacation for you—one that you will remember all your life.

Our party will leave New York on April 30 aboard the S.S. Queen Mary, and return June 4. We invite you to join our tour and to experience the happiest and most carefree vacation you have ever had. Our tour escort handles all travel details — you'll have nothing to do but enjoy yourself.

Better write at once for the tour folder if you are interested in coming with us. It's free and will give full details and the cost of the all-expense ticket. Just fill out the coupon and mail it today to A. James Hall, American Agriculturist, Box 367-E, Ithaca, N. Y.

A. James Hall
American Agriculturist
Box 367-E
Ithaca, N. Y.

Please send me, without any obligation on my part, a copy of the itinerary of your European Tour,

April 30-June 4, 1963.

Name _____

Address _____

(Please print)





The *Clothes* LINE



4502. Wear it as duster, robe or daytime dress. Choose cotton, a fleecy blend. Printed Pattern in Half Sizes 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

4665. Smartly bloused bodice above skirt of graceful pleats. Looks well in a slubbed wool, flowing crepe. Printed Pattern in Misses' Sizes 10, 12, 14, 16, 18. 35 cents.

4780. Sporty casual with step-in buttoning, back yoke, action pleat. Wool, jersey, winter cotton are smart fabrics. Printed Pattern in Misses' Sizes 10, 12, 14, 16, 18. 35 cents.

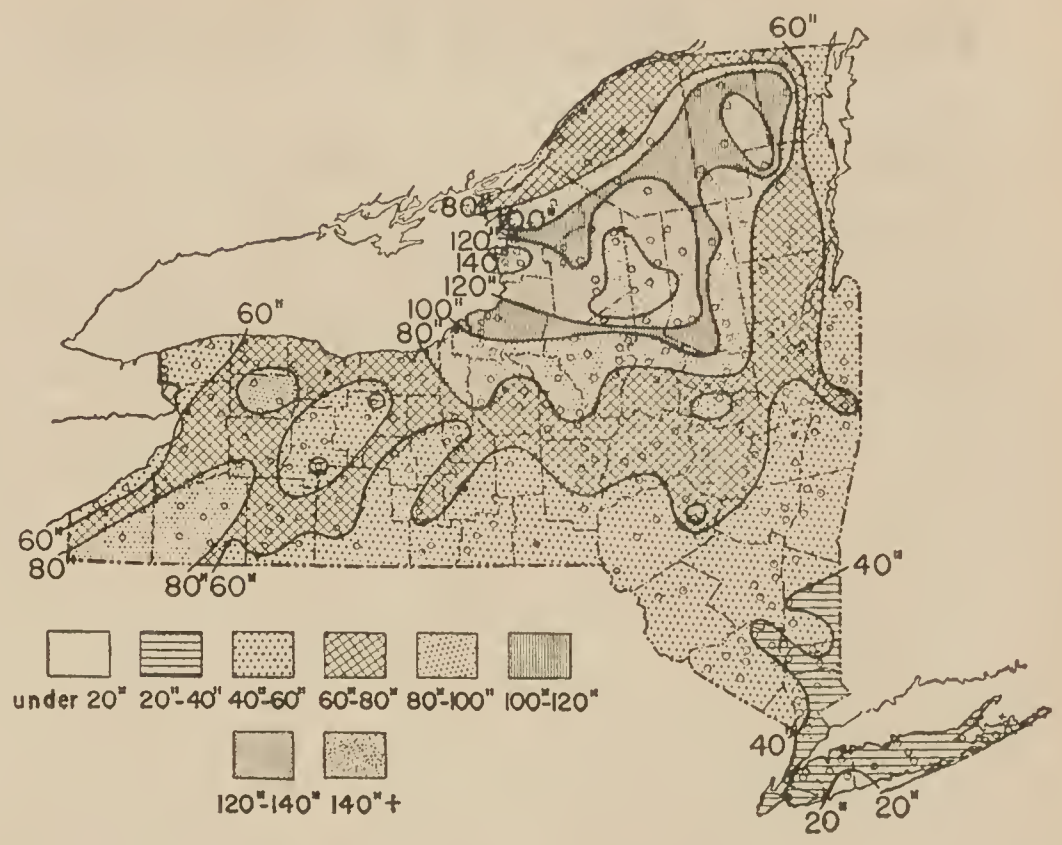


4986. Intern jacket and pop top —both popular with teens. Cottons for these. Printed Pattern in Teen Sizes 10, 12, 14, 16. 35 cents.

4625. Dressy style for the holidays. Sew it in silk crepe, challis, wool. Printed Pattern in Half Sizes 12½, 14½, 16½, 18½, 20½, 22½. 35 cents.

9489. Flip-back collar, raglan sleeves, six-gore skirt for this half-size style. Choose cotton, faille, wool flannel. Printed Pattern in Half Sizes 14½, 16½, 18½, 20½, 22½, 24½. 35 cents.

PATTERNS are THIRTY-FIVE CENTS each. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Department, Box 42, Old Chelsea Station, New York 11, New York. Please write name, address, pattern size and numbers clearly. Send 35c for our color Catalog of Printed Patterns.



What's Your Mean Annual Snowfall?

Depends on where you live.

In the "snow belt" east of Lake Ontario, you can expect 110 inches or more! In southeastern New York 20 to 40 inches.

To Cornell meteorologists who compiled the map, the "mean" is the mid-point of many years' records. To others, any amount of snow is just plain mean!

For everybody, official forecasts of amount of snow and other weather factors come to you on WEATHER ROUNDUP at 6:25 and 7:15 A. M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Scranton, Pa.	WEJL	630 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Walton	WDLA	1270 kc.
Olean	WHDL	1450 kc.			

Northeast Radio Network

GLF Quality

Brought to you at 7:15 A.M. by the Cooperative G.L.F. Exchange, Inc.

CHRISTMAS... Is For All the Family



Ed Eastman's Page

LOOKING BACK across the years to a good many Christmas holidays gives one a perspective — a realization of what Christmas is really for.

There was that first one that I can remember when I was five or six years old, when I worked for Father for a whole month and earned one dollar. I used it to buy presents for Father, Mother, and my three brothers. You can imagine the great care I took in making that dollar do.

Well remembered still are the delicious smells and the marvelous sights to a five-year-old in Mr. Darbonier's little country store. Remembered also are the storekeeper's kind help and Mother's suggestions to make that dollar serve for presents for everyone in the family.

In those days, we didn't have many presents for Christmas. There was no tree. We hung our stockings on the clock shelf, and on Christmas morning we were excited to find in our stockings maybe a big sweet orange, a long stick of striped candy, and in the stocking or on the floor under it perhaps just **one** present. But I am sure those few presents meant more and were better appreciated than the dozens that are now found under most Christmas trees.

With me, Christmastime has not always been one of joy and gladness. My father died between the holidays and I am still saddened by the rain on the roof because it fell on the porch roof outside my bedroom window the night of my father's funeral. Not very long ago, Albert—my youngest brother and the last of my family—died at Christmastime.

In thinking of the happiest Christmases, I do not remember the presents I received. Instead, I recall the family reunions that we had at Christmastime, those whom I loved who gathered at that time around the Christmas dinner table whose forms "no longer cast a shadow in the sun."

But the past is gone. Thank God we have the present so we can look forward to the gathering of our children and grandchildren at Christmastime, which is our greatest joy. Christmas is most of all a family holiday—a time not so much to give and receive presents —but a holy time of peace, of togetherness and love—a time when more than ever we are one for all, and all for one.

THE DIFFERENCE BETWEEN PROFIT AND LOSS

THE NEED of saving money on the grain bill was ingrained in me as a boy on the home farm because it always seemed that it took most of the milk check to pay the feed bill. It was long before the coming of hybrid corn varieties, so our silage corn had no ears. There was some red clover, but little or no alfalfa in the whole county.

None of our cows was high-producing, but they did differ a lot in production. That made no difference to Father, because in the kindness of his heart he couldn't bear to show any partiality at grain-feeding time, and went right down the whole line of cows giving each cow the same amount of grain whether she was giving two quarts of milk or ten.

A dairyman with a silo full of matured eared corn and a barn full of legume hay is sitting pretty **if** he has good cows, and **if** he realizes that his judgment in the use of purchased grain can make a difference between profit and loss.

WORTH READING

THE NEW YORK State Historical Association of Cooperstown, New York, has just published the autobiography of Jared Van Wagenen, Jr. The title of the book is DAYS OF MY YEARS; the price is $3.95, and it may be ordered from the Association at Cooperstown.

It is one of the most interesting books I have read in a long time, and should be in every home library.

For nearly a half century, Jared wrote for American Agriculturist in a most readable, homely style that was all his own. His family had lived on their farm at Lawyersville, New York, since the first settlements, so it was a "Century Farm."

Jared himself was in a sense a pioneer. He was a member of the first class graduated from the New York State College of Agriculture, and as a Farmers' Institute lecturer pioneered in agricultural extension work. Through the hundreds of meetings which he addressed, and through his writings in American Agriculturist, Jared was known and loved by thousands of farm people. Jared loved farming and farm people, and understood their joys and sorrows as well as anyone I have ever known.

You will enjoy his autobiography.

THANK YOU

I WANT TO take this opportunity to thank all who so kindly sent me old-time pictures, or letters describing some which they would be glad to send. I received over 200 letters—all of them very interesting but most of the pictures so faded or colored that they can't be reproduced.

I have more than I can use, even of the good ones, so have returned many and am holding others, if agreeable to you, until January or February, when I will know whether or not I can use them either in American Agriculturist, or in a book. All will be carefully preserved and returned.

Many, many thanks for your fine cooperation!

EASTMAN'S CHESTNUT

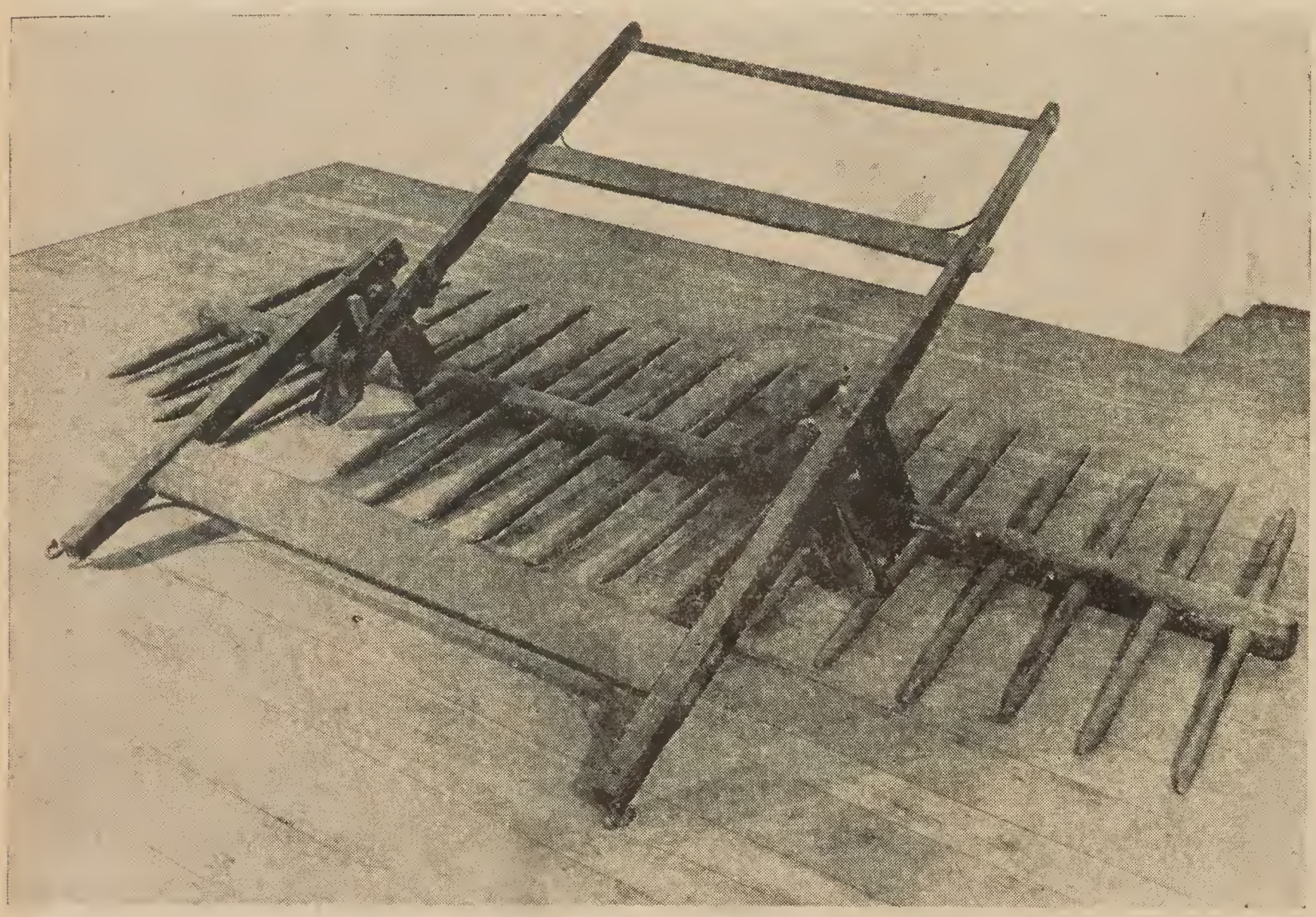
THERE WAS a redheaded wag living in a community some years ago who could, when he wanted to, look like a fool. To the village in which he lived came summer boarders, who were only tolerated by the local folks because they brought some income into the neighborhood.

On one occasion our redheaded friend was trying to lead a hog across a muddy road. Now, if you have had any experience with hogs, you will know that this is an almost impossible task. Just when the man was having his hardest time leading, pushing, and swearing the hog across, a bunch of the summer boarders came along in a democrat wagon. To the vast amusement of the others, one of the boarders yelled,

"One of your family?"

The redheaded man straightened up, took off his ragged straw hat, put on his foolish look and yelled back:

"No—just a summer boarder!"



This old-time one-horse revolving hand dump rake was one step up from raking hay entirely by hand.

After you lifted the handle to dump the hay in the windrow, if you didn't watch out it would strike you, and maybe carry you right over under the heels of the horse.

The next step after this rake was the riding dump rake, still in some use. This was followed by the modern side-delivery rake, and in turn on some farms by no rake at all because of field chopping.

Thus does progress march on! Picture, Courtesy Farmers' Museum, Cooperstown, N. Y.

Service Bureau

FREE DIRECTORY

"I am interested in correspondence schools offering training in the operation of heavy equipment. Could you recommend any?"

The National Home Study Council, 1601—18th Street, N. W., Washington 9, D. C. offers a free list of accredited home study schools and the subjects and courses available.

THANKS FOR HELP

"Thank you for printing my request under Can You Help. I received over 50 letters and many cookie cutters—from Texas, Florida, Maine, Connecticut, New Jersey, Pennsylvania and New York.

"I just can't answer them all, but would like to thank your readers." *—Mrs. Howard Heroth, Fort Plain, N. Y.*

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mrs. Fred Weber, Roxbury $ 2.00
(credit rec'd.)
Mr. E. E. Clark, Sr., Berkshire 101.25
(adjustment on loss)
Mr. Raymond Beckens, Newark 184.00
(premium refund)
Mrs. Lloyd Olmstead, Poughkeepsie 2.00
(refund on quilt pieces)
Mr. Roger Waterman, Bergen 1.00
(refund on kit)
Mr. John Rykaczewski, Houghton 60.00
(payment for dogs)
Mr. Carlton Loomis, Bainbridge 2.00
(refund on parts)
Knop Bros., Kent 11.19
(refund on order)
Christman's Exchange, Fort Plain 30.00
(payment on acc't.)

PENNSYLVANIA

Mr. Frank Burleigh, Snedekerville 38.03
(credit on order)

NEW JERSEY

Mr. Arthur Gibbs, Hackettstown 24.00
(refund on vitamins)

MARYLAND

Mr. Marshall Bornt, Salisbury 9.33
(refund on records)

MAINE

Mr. Kervin A. Rogers, Liberty 9.94
(refund on sprayer)
Mrs. Ralph A. Turner, Freeport 5.00
(refund on order)

NEW HAMPSHIRE

Mr. Karl Connor, Henniker 130.00
(payment on cow)
Mr. Verne P. Russell, Alstead 1.73
(refund of postage)

VERMONT

Mrs. Lillian Fleming, Vergennes 6.50
(refund on clothes)

CONNECTICUT

Mrs. Chas. H. Larson, New Milford 2.25
(refund on guinea hen)

CAN YOU HELP?

If you have copies, in good condition, of "Twice 55 Community Songs, Green Book," published in 1923 by C. C. Birchard, Boston, Mass., please write Mrs. Paul Killam, Rt. 2, Box 5, Chester, N. H.

* * *

Mr. Harold M. Warner, 451 Embury Rd., Rochester 25, N. Y. would like a copy of "Life & Memories of Ann and Susan Bartlett Warner" by Olivia E. Phelps Stokes, published in 1925.

* * *

Mrs. J. Nocereto, 76 Dix St., Hamden 14, Conn. would like to know if a little magazine, "Good Stories," which used to be published in Augusta, Me. is still being published.

* * *

Carl Greene, R.D. 3, Oneonta, New York, would like to buy or exchange books by Edgar R. Burroughs or Talbot Mundy. Please send information concerning titles.

* * *

Mrs. J. W. Richardson, Box 743, Lake George, N. Y. would like the words to an old song, beginning "There's a tree in Father's garden."



Arthur Huxtable and his daughter Hope receive checks from local agent Ellis Smith, right, of Richfield Springs, N. Y. The Huxtables, well known farmers in Herkimer county, know the value of protecting every member of the family with North American policies.

ARTHUR HUXTABLE ACCIDENT:

Kicked by a cow, he suffered a fractured ankle. Laid up for thirteen weeks and in the hospital eight days his medical bills were $524.45.

Benefits from his two North American policies:

Loss of time	$328.57
Medical expenses	503.02
Total benefits	$831.59

HOPE HUXTABLE ACCIDENT:

She fractured her thigh bone and cut her scalp in an auto accident. With eighteen days in the hospital and five weeks disability the medical bills were $1202.50.

Two North American policies paid her:

Loss of time	$ 135.71
Medical expenses	1064.28
Total Benefits	$1199.99

A Friend's Name May Be in this List.

Frank D. Nelson, West Valley, N. Y. $ 666.44
Finger caught in saw—cut & fractured fingers
Ford L. Barrett, Cato, N. Y. 757.17
Hit by barn door—injured face & back
Francis C. Walters, Moravia, N. Y. 458.71
Auto accident—cut eyelid, injured chest
Albert P. Eggert, Westfield, N. Y. 1270.00
Slipped and fell—injured back
Louise Friends, Pine City, N. Y. 307.14
Crushed by cow—injured back
Floyd Bennett, Horseheads, N. Y. 375.32
Injured knee playing basketball
Robert Bates, Greene, N. Y. 619.67
Refueling tractor—burned arms, hands, back
Bessie E. Badger, Champlain, N. Y. 120.00
Fell on stairs—fractured arm
William Young, Craryville, N. Y. 260.00
Kicked by cow—fractured ankle
Clifford Chase, Marathon, N. Y. 210.00
Crushed by cow—fractured toe
Clifford Chase, Marathon, N. Y. 329.83
Auto accident—injured knees
George Lichtfus, Delhi, N. Y. 364.28
Cow stepped on finger—injured & infected
Gerald W. Rugg, Collins, N. Y. 291.50
Fell from load of hay—injured back
Michael McCusker, Keeseville, N. Y. 107.14
Fell on ice—injured knee
Gary Elmer, Moira, N. Y. 135.71
Slipped on wagon—injured back
Terry G. Willis, Constable, N. Y. 113.00
Skiing and fell—broken right leg
Claude H. Oaksford, Johnstown, N. Y. 139.29
Dragged by heifer—fractured rib
Glen Grinnell, Batavia, N. Y. 314.85
Kicked by cow—injured knee
Ferris Herdman, Lexington, N. Y. 315.58
Pedestrian accident—injured pelvis, cuts
Verna Hammond, Carthage, N. Y. 521.65
Burned foot while removing roast from oven
Elmer A. Petzboldt, Castorland, N. Y. 416.56
Hit by cow—fractured ribs
Nellie Keefer, Copenhagen, N. Y. 1124.00
Auto accident—injured head and back
Robert Wachholder, Sr., Mt. Morris N. Y. 400.25
Kicked by cow—internal injuries
Charles Rodman, Earlville N. Y. 290.00
Riding tractor—injured knee
Walter Rodas, Hamlin, N. Y. 150.00
Fell down silo chute—injured neck & shoulders
Kenneth Beyer, Fultonville, N. Y. 589.00
Loading hay on wagon—injured finger & tendons
Frederick Petrie, Clinton, N. Y. 850.00
Fell moving car—injured back
Vernon Jeffery, Lafayette, N. Y. 842.00
Fell—injured shoulder

Thomas Guile, Naples, N. Y. 1705.00
Struck by car—broke leg, cuts & bruises
Dirk Pennings, Goshen, N. Y. 309.28
Kicked by cow—injured back
Edward Brown, Warwick, N. Y. 422.86
Fell off tractor—injured back
Fred Sommerfeldt, Holley, N. Y. 234.28
Auto accident—fractured jaw, cut face
Clark R. Welch, Fulton, N. Y. 867.75
Fell in barn—fractured leg
Joseph Keene, Gilbertsville, N. Y. 1277.85
Slipped on ice—injured knee & back
George A. Richards, Petersburg, N. Y. 300.00
Tractor accident—injured legs & back
Kenneth Phelix, Hopkinton, N. Y. 312.91
Auto accident—multiple cuts & bruises
William L. Knowlton, Gouverneur, N. Y. 285.00
Kicked by heifer—injured chest, broke rib
Mike Kodra, Dorloo, N. Y. 211.85
Fell from tractor—fractured ankle
Hazel Russell, Alpine, N. Y. 259.00
Fell on steps—fractured foot, injured knee

Keep Your Policies Renewed

Helen Hall, Rexville, N. Y. 274.08
Fell—injured leg
Charles I. Woodworth, Harnell, N. Y. 394.28
Auto accident—fractured elbow
Rose E. Koroleski, Mattituck, N. Y. 122.86
Auto accident—concussion, injured ribs & hip
John Koroleski, Mattituck, N. Y. 557.00
Auto accident—loss of teeth, cut lip
Blanche Zurn, Long Eddy, N. Y. 611.31
Fell—injured vertebrae
Harriette Lant, Berkshire, N. Y. 370.79
Fell from hay wagon—injured foot
Albert Bunk, Ludlowville, N. Y. 758.75
Auto accident—broke arm, cut face, bruises
Nicholas Affusa, Marlboro, N. Y. 536.20
Fell from tree—broken leg
John F. Hackett, Java Center, N. Y. 603.19
Fell off roof—concussion, broke shoulder

Lester Nortier, Walworth, N. Y. 986.25
Fell off truck—fractured leg
Elizabeth VanderWerf, Palmyra, N. Y. 327.14
Slipped and fell on ice—fractured wrist
William Wahler, Penn Yan, N. Y. 1438.90
Auto accident—multiple fractures & cuts
Edna Wahler, Penn Yan, N. Y. 1420.00
Auto accident—multiple fractures, concussion
John Rieppel, Mansfield, Pa. 579.01
Crushed by cow—internal injuries
Lewis Ashley, Wellsboro, Pa. 1014.06
Fell—fractured thigh
Walter S. Cole, Sr., Snedekerville, Pa. 626.82
Tractor accident—cut & bruised leg
Alberta Gleason, Covington, Pa. 651.20
Crawling thru fence—torn knee
Raymond E. Swift, Edinboro, Pa. 486.30
Injured knee while milking cows
Row M. Swart, Corry, Pa. 275.00
Fractured ankle between spreader tongue & tractor
Andrew Bonts, Waymart, Pa. 270.00
Kicked by cow—injured knee
Peter Kline, Sewell, N. J. 1226.14
Slipped on ice—fractured hip
Clayton Evens, Marlton, N. J. 332.94
Squeezed by cow—back injury
E. Wayne Miller, Wrightstown, N. J. 204.89
Fell off combine—injured knee
Joseph Yaeger, Freehold, N. J. 1200.00
Gunshot wound—fractured right knee
H. Stanley Kirby, Allamuchy, N. J. 860.00
Auto accident—multiple injuries
John W. Nodzak, Blairstown, N. J. 310.00
Twisted knee playing volleyball
Leonard Mills, Shelburne Falls, Mass. 608.58
Injured hand & fingers on circular saw
James Raedel, No. Adams, Mass. 104.00
Fell from tractor—injured back & shoulder
Arnold Fresc, Adams, Mass. 164.42
Stepping off tractor—injured back
George Wagner, Freedom, Maine 175.50
Hit by piece of wood—injured eye
Armand Beaudry, Auburn, Maine 141.42
Fell off load of hay—injured shoulder
Allen R. Andrus, Barre, Vt. 266.00
Crushed against rock—injured chest & abdomen
Raymond Belanger, Morrisville, Vt. 321.95
Auto accident—cut legs & fractured arm
Orrin B. Bolster, East Dover, Vt. 310.00
Slipped from tractor—injured ankle, chest
Jennie B. Ward, St. Johnsbury, Vt. 615.80
Pedestrian accident—fractured leg
Benjamin LeClair, Hinesburg, Vt. 156.43
Fell from hay wagon—injured knee
Hattie Brown, Raymond, N. H. 120.00
Fell—injured hip

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
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FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
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To Readers of American Agriculturist

A message of importance regarding one of your biggest farming decisions:

WHICH BRAND OF FEED SHOULD YOU SELECT?

WHETHER YOU PRODUCE milk, meat, or eggs, feed is your No. 1 production cost. Choose your feed source carefully now and for the years ahead. The right choice now can help bring you extra profit dollars every single month. The following checklist will help you decide on this important farming decision:

THE FEED COMPANY

Is it stable? Successful? Well established? Soundly financed? Here to stay? Is it growing or remaining static?

The Beacon Division of Textron Inc. was created by joining two of the nation's strongest independent feed manufacturers. Sales volume, reaching from the Atlantic Coast to the Rockies, is among the largest in the industry. Management is alert and aggressive. Financial structure is solid. Beacon has served Northeastern farmers for 42 years . . . and is still growing.

RESEARCH

Does the feed company have a top flight research staff? Does it conduct research on its own farms? Do feeds resulting from this research give top performance on commercial dairy and poultry farms?

The Beacon Feeds research staff is recognized as one of the finest in the country. The Beacon Poultry and Dairy Research Farms are top commercial research facilities. Results of this research constantly help make each ton of Beacon feed more productive . . . more efficient . . . more profitable to use.

FEED PERFORMANCE

How will the feed perform in your area? Have enough of your neighbors used the feed to see what it will do? What do users say about this feed?

Millions of tons of Beacon have been fed in the Northeast. This tonnage has increased over the years — the best possible evidence that nutrient-packed Beacon feed gives outstanding performance. Any Beacon feeder will talk about this top performance.

SERVICE

Under today's highly competitive conditions, service is vital. How well is the feed company representative trained? How much does he understand your farming problems? Is he a professional who can really help you or does he just write down your feed order?

Beacon Advisors are a team of highly trained professionals. They are widely experienced in feeds and feeding programs. Beacon Advisors work closely with farmers and dealers . . . serve you as consultants on today's farming problems . . . help increase production per animal, solve business problems.

YOUR DEALER

Is he well equipped? Is he expanding? Does the feed company believe in the dealer — does it have a policy of helping the dealer help you?

Careful selection and full support of Dealers is Beacon policy. Beacon dealers are alert, progressive, vitally concerned with helping your farming operation prosper.

THE DECISION

It's yours. Choose your feed supplier carefully. Much depends on your decision. A wise step is to select Beacon Feeds, and benefit from superior research, efficient feeds, and the unique capabilities of the Beacon Advisor. For more facts, call your Beacon Advisor today. Ask him about Beacon's Programs for Profit and how they can help you. Or contact Beacon Feeds.

BEACON
FEEDS

Beacon Division of textron · Cayuga, N.Y.